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Combustion Scaling and Modeling Gas Mixing Data in NRL 5000-Liter Facility with Flow Obstacle

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COMBUSTION SCALING AND MODELING GAS MIXING DATA IN NRL 5000-LITER FACILITY WITH FLOW OBSTACLE

INTRODUCTION

Carhart and Fielding [1] proposed a fire suppression technique of inerting pressurizable spaces by nitrogen pressurization. This technique is attractive since an atmosphere is created that suppresses fire yet supports life [2]. Other advantages include the inertness of nitrogen to electrical wiring, machines, and air purification devices as well as, in the use of submerged submarines, the relative ease of returning the atmosphere back to normal. There are two requirements for successful utilization of this technique. First, the fire must be suppressed quickly to avoid excessive production of toxic gases and pressure due to combustion and heat production. Second, the addition of nitrogen must occur with sufficient turbulence to provide adequate mixing of the pressurant and resident gases. The feasibility of nitrogen pressurization has been demonstrated in suppression studies of liquid pool fires in 270- and 5000-liter chambers [3-5]. To examine possible stratification of resident and pressurant gases during rapid pressurization, concentration histories of pressurant gas are inferred at specified points in the chamber space. Early studies without combustion and flow restriction to gases have been performed at the NRL 5000-liter facility by Stone et al. [6-11] and in a 1/6-scale (geometric) model at the University of Washington by Professor R. C. Corlett's group (NRL Contract N00014-75-C-0185). Our present aims are: to study rates of mixing of the pressurant gas with the resident gas during pressurization; to discover how various parameters such as geometry, obstacle type and position, nozzle design and location, and pressurization time affect these rates; and to seek scaling rules which predict concentration history profiles in a geometrically scaled 324 cubic meter chamber, about one-half scale to most submarine compartments. Presented in this report are gas-mixing data in their reduced form from the NRL 5000-liter mixing chamber where an obstacle is present to impede gas flow. Fine wire thermocouples are used to measure gas temperatures from which pressurant concentration histories and thus mixing rates are inferred [12-14].

EXPERIMENT AND PROCEDURE

Apparatus

Figure 1 schematically shows the experimental arrangements. Tank 1 is a steel, cylindrical pressure tank with two convex ends, and it lies horizontally. Its volume is 2260 liters with a length of 2.33 m, a diameter of 1.07 m, and a mean-wall thickness of 9.5 mm. Tank 2 is a steel, cylindrical modified decompression chamber. Its volume is 5000 liters with a length of 2.74 m, a diameter of 1.55 m, and a mean-wall thickness of 11.1 mm. A hatch on one end opens inwardly, allowing access to the interior. An air lock is centered on the opposite end. The chamber was modified to allow numerous gas-collecting tubes, wires, thermocouples, and pipes to penetrate the walls. The original interior nozzle system, lighting system, and 6.4 mm steel floor plates remain; all other hardware has been removed. In addition, two thin aluminum plates have been laid on the floor plates to mount the obstacle and aluminum rods which position Type K, chrome-alumel thermocouples at desired locations within the chamber (see Fig. 2). Pressure transducers are connected to both tanks to indicate pressure during the experiments. A more detailed description of the equipment can be found in NRL Memorandum Reports by Stone et al. [6-11].

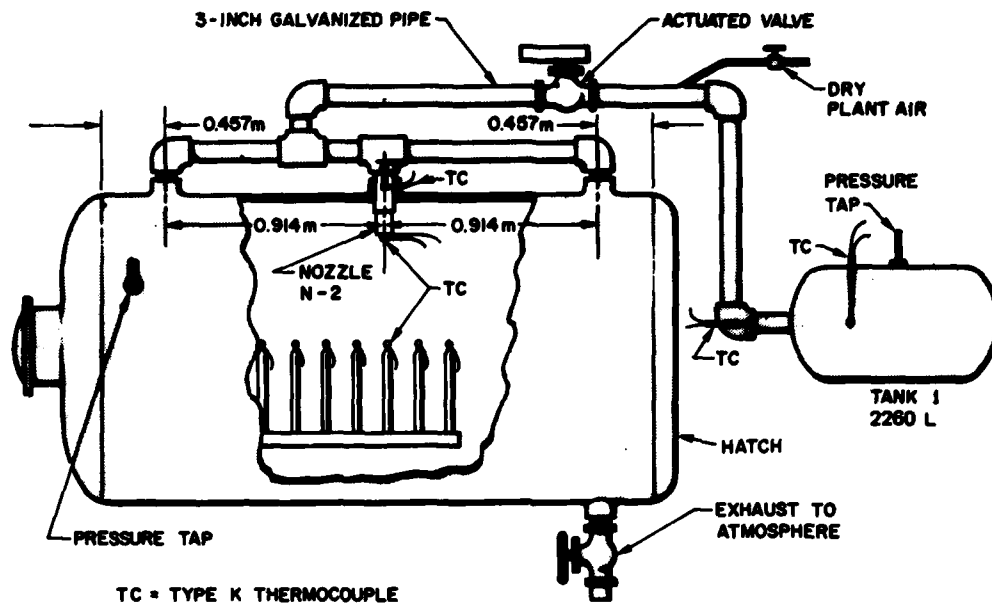


Fig. 1 — Schematic of apparatus

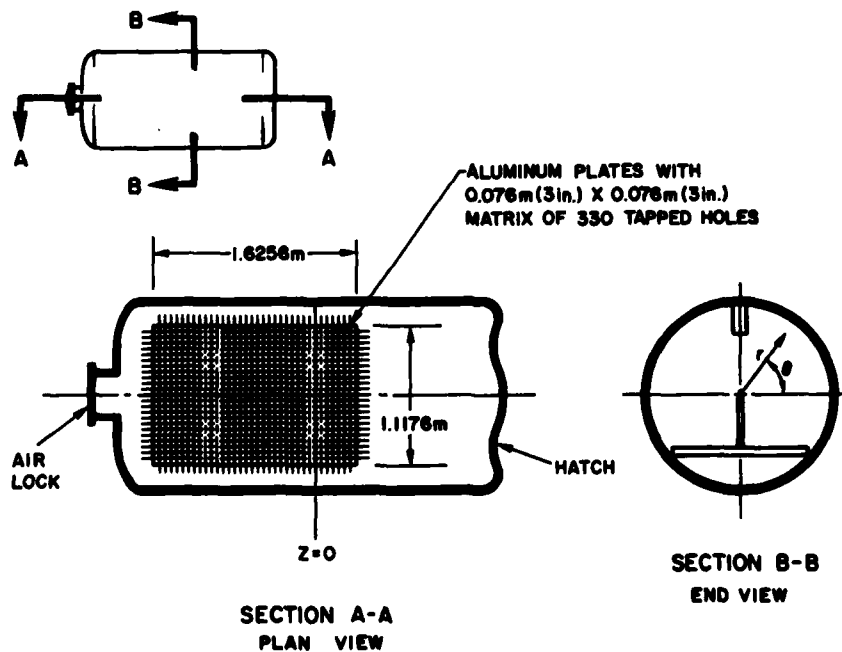


Fig. 2 — Plan and end views of Tank 2, showing cylindrical coordinates and matrix of 330 tapped holes

In this work, an additional, solid, rectangular obstacle is introduced to impede gas flow and simulate clutter. The obstacle is stainless steel, 0.460 m square top and 1.0 m tall. Thin rectangular wings protruding from the sides at the bottom enable the obstacle to be secured to the floor plates. Figure 3 shows locations of the obstacle, the nozzle, and the thermocouples.

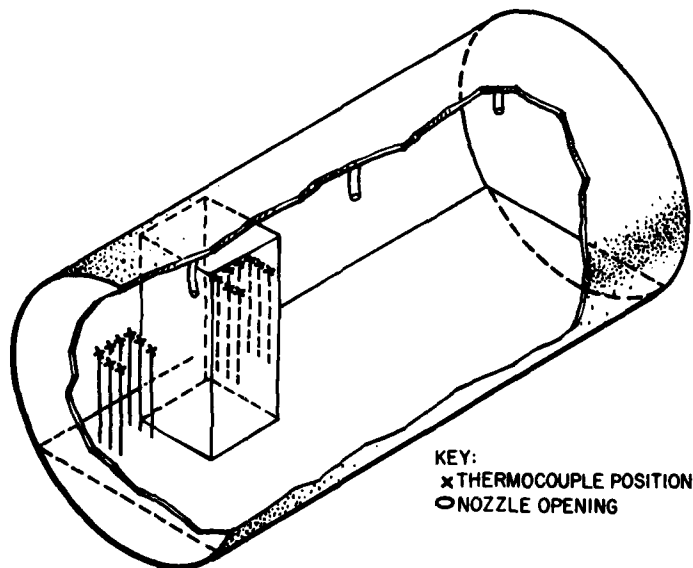


Fig. 3 — Interior view of Tank 2

For convenience, a cylindrical coordinate system (r, θ, z) was chosen to indicate chamber interior positions in Tank 2. As Fig. 2 shows, a vertical plane through the center of the cylindrical tank normal to its center axis is taken as the $z = 0$ plane, with the air lock selected as the positive z direction and the hatch as the negative z direction. Obstacle, thermocouple, and nozzle arrays are characterized by the coordinate system.

Table 1 summarizes the test sets in terms of experimental variables. Configurations 1 to 3 vary only in respect to their nozzle arrays, and consequently pressurization times. Filling pressures, obstacle location and type, and in situ temperature measuring points are left as a control. Table 2 details the descriptions of nozzle and thermocouple arrays and obstacle locations.

Procedure

The procedures for all test runs were identical. Tank 1 is charged with clean, dry air to a pressure of 689 kPa (6.8 atm); the air temperature is allowed to equilibrate for 5 min with the tank walls. Then, with Tank 1 pressure at about 657 kPa (6.5 atm) (ambient temperature) and Tank 2 pressure at 101.3 kPa (1 atm) (ambient temperature) both Doric data logging systems are started by remote switch. The data loggers are allowed to run for approximately 30 s. Simultaneously, the actuated dump valve between Tanks 1 and 2 is opened and an event mark is recorded on a channel on a Doric system. Tank 2 is pressurized to 202.6 kPa (2 atm) absolute. Then the valve is closed and another event mark signals the termination of the gas dump. The Doric system records the mixing processes for 15 to 20 additional minutes and is then deactivated.

Table 1 — Summary of Test Sets

Test Configuration	1	2	3
Nozzle Array	I	II	III
Nozzle Diameter (mm)	15.2	15.2	15.2
Thermocouple Array	I	I	I
Obstacle Location	I	I	I
Filling Pressures	1.0 to 2.0 atmospheres		
Mean Dump Time (s)	30	15	10
Number of Good Experiment Runs	7	8	9
Run Numbers	202	300	103
Data Assigned	203	301	104
	205	302	105
	206	306	106
	208	307	107
	209	308	113
	211	309	114
		310	116

Table 2 — Nozzle and Thermocouple Locations

<u>Nozzle Arrays: # Nozzle ($r(m)$, $\Theta(\text{rad})$, $z(m)$)</u>		
I	(1)	(0.483, $\pi/2$, 0)
II	(2)	(0.483, $\pi/2$, 0) (9.483, $\pi/2$, -0.914)
III	(3)	(0.483, $\pi/2$, 0.914) (0.483, $\pi/2$, 0) (0.483, $\pi/2$, -0.914)
<u>(Obstacle Location: ($r(m)$, $\Theta(\text{rad})$, $z(m)$))</u>		
<u>(Obstacle coordinates on horizontal diameter plane)</u>		
I (0.076, 0, 0.229), (0.533, 0, 0.229), (0.076, 0, 0.686), (0.533, 0, 0.686)		
<u>Thermocouple Array: ($r(m)$, $\Theta(\text{rad})$, $z(m)$)</u>		
I	(1)	(0.076, 0, 0.991)
	(2)	(0.152, 0, 0.991)
	(3)	(0.229, 0, 0.991)
	(4)	(0.229, 0, 0.914)
	(5)	(0.229, 0, 0.838)
	(6)	(0.229, 0, 0.762)
	(7)	(0.152, 0, 0.762)
	(8)	(0.076, 0, 0.762)
	(9)	(0.076, 0, 1.152)
	(10)	(0.152, 0, 0.152)
	(11)	(0.229, 0, 0.152)
	(12)	(0.229, 0, 0.076)
	(13)	(0.229, 0, 0)
	(14)	(0.229, 0, -0.076)
	(15)	(0.152, 0, -0.076)
	(16)	(0.076, 0, -0.076)

The data recorded on the two Doric system tapes in EBCIDIC character set are converted to ASCII and merged together programmatically on a Hewlett-Packard 21MX minicomputer. A set of programs [15] are then used to reduce and plot the data.

DATA ANALYSIS

Corlett et al. [14] have provided a method of transient thermodynamic analysis of the temperature data to infer statistical scale-modeled pressurant mixing at each thermocouple site. A brief synopsis of their analysis is provided here, but a complete description can be found elsewhere [12,14]. The desired results are a history of local pressurant mole fraction, X_i , at each interior thermocouple location in the chamber during a scaling run.

Two phenomena complicate this analysis. First, the chamber contents are far from adiabatic and heat transfer from the gas to the walls is dependent on position. To account for this heat transfer and still avoid having to quantify position dependence, it is assumed that the molar gas-to-wall heat transfer coefficient is independent of interior position. The validity of this assumption seems allowable for strongly turbulent flow regimes and depends on how well the regime averages along the inside surface of the chamber. Second, the pressurant temperature is time dependent after entering the chamber. While the temperature of the pressurant gas increases as the chamber is being filled, pressurant gas dumped towards the end of the filling time will tend towards a higher temperature than its predecesing pressurant gas. Also, the temperature of a parcel of pressurant increases relative to its value at injection during compression. It is assumed only that the pressurant age distribution is the same at every interior point only to avoid the otherwise necessary quantification of time dependent flow regime. This assumption is not too far in error for times not too near initial valve opening and after mixing is complete.

The local heat transfer rate per mole of gas, \dot{Q} , is

$$\dot{Q} = \left(\frac{\beta R}{\theta} \right) (\bar{T} - T_0) \quad (1)$$

where R is the gas constant, \bar{T} is the average temperature in the enclosure, and T_0 is the initial temperature. Since turbulent convective heat transfer is nearly proportional to flow velocity which in turn is roughly proportional to $d \ln N / dt$ during filling, we define a characteristic time θ during pressurization ($0 < t < t_c$) and after pressurization ($t > t_c$), where t is anytime, t_c is the enclosure filling time, and θ_c is the characteristic time taken just prior to the completion of dumping. We define:

$$\theta \triangleq \left(\frac{d \ln N}{dt} \right)^{-1} \text{ for } 0 \leq t \leq t_c \quad (2)$$

and

$$\theta_c \triangleq \left(\frac{d \ln N}{dt} \right)^{-1}_{t=t_c} \text{ for } t > t_c \quad (3)$$

where N is the number of moles of gas in the chamber. The dimensionless parameter β is used to characterize a molar heat transfer coefficient so that Eq. (1) is satisfied. A control volume energy balance shows that during compression

$$\beta = \frac{\gamma T_s - \bar{T} - (d\bar{T}/d \ln N)}{(\gamma - 1)(\bar{T} - T_0)} \quad 0 \leq t \leq t_c \quad (4)$$

and during postpressurization

$$\beta = - \frac{d \ln (\bar{T} - T_0) / dt}{(\gamma - 1) / \theta_c} \quad t > t_c \quad (5)$$

where γ is the specific heat ratio of air (C_p/C_v) and T_s is the pressurant supply temperature.

The mixing of gases which results in a parcel of gas at temperature T_i at any point and time can be determined as if a parcel of resident air at temperature T_a and a parcel of pressurant gas at temperature T_p mix instantaneously and adiabatically at constant pressure. The fraction of pressurant gas in the mixed parcel is X_i . The assumption of the pressurant age distribution being the same at every point allows an internal energy summation over the entire chamber

$$N \bar{T} = (N - N_0) \bar{T}_p + N_0 \bar{T}_a \quad (6)$$

which results in

$$X_i = \frac{\bar{T}_a - T_i}{\bar{T}_a - \bar{T}_p} = \left(1 - \frac{N_0}{N}\right) \left(\frac{\bar{T}_a - \bar{T}_i}{\bar{T}_a - \bar{T}}\right) = \bar{X} \left(\frac{\bar{T}_a - \bar{T}_i}{\bar{T}_a - \bar{T}}\right) \quad (7)$$

where \bar{X} is the molar average pressurant fraction for the entire chamber contents. The average temperature of pressurant gas, \bar{T}_p , is determined by a numerical integration over the chamber contents as shown

$$d\bar{T}_a = \frac{\gamma - 1}{\gamma} \bar{T}_a (d \ln P) - \mu [(T_s - \bar{T}/\gamma) d \ln P - \bar{T}_s d \ln \bar{T}] \quad (8)$$

where $\mu = \bar{T}_a - T_0 / \bar{T} - T_0$ and T_s is the supply temperature of pressurant measured at a nozzle exit. Program CINFR[15] carries out this integration using the following initial boundary conditions: $\bar{T}_a = \bar{T} = T_0$, $T_s = T_{s0}$, $P = P_0$, and $\mu = \mu_0 \approx 1$. Thus the pressurant mole fraction at any point inside the chamber can be calculated for times both during and after pressurization from only a temperature profile and measured pressure data.

A scale-modeling hypothesis is also produced. It states that, for geometrically similar enclosures, a dimensionless pressurant deviation, ξ , is a unique function of dimensionless time, τ , at homologous model and prototype points regardless of enclosure pressure level or pressurization rate [14]. Dimensionless time is defined for the filling process as

$$\tau = \frac{\bar{X}}{\bar{X}_c} \quad 0 < t < t_c \quad (9)$$

and for postfilling as

$$\tau = \frac{t - t_c}{\theta_c} + 1 \quad t > t_c \quad (10)$$

where $\theta_c = -[\ln(1 - \bar{X})/dt]_{t=t_c}^{-1}$ can be used. The dimensionless pressurant deviation is defined as

$$\xi = \frac{X - \bar{X}}{\bar{X}_c} \quad (11)$$

where X is the inferred pressurant mole fraction at any time τ ; \bar{X} is the molar average pressurant fraction where all pressurant added to the chamber in time τ is perfectly mixed with the chamber resident gas; and \bar{X}_c is the maximum, final value of \bar{X} at time $t = t_c$. Notice the pressurant deviation is positive when the chamber gas is pressurant rich, negative when pressurant poor, and zero when completely mixed.

This report provides a relationship for pressurant gas concentrations as a function of time and position so that:

- (1) the gaseous mixing which results from the turbulent flow around an obstacle can be inspected and described in some way; and
- (2) mixing can be characterized and predicted for any geometrically similar enclosure with a geometrically similar flow regime.

This relationship is statistically averaged over several scaling runs for each test flow configuration.

RESULTS

As mentioned earlier, a minicomputer is utilized to systematically reduce and analyze the data for each test configuration. Table 3 indexes all data charts produced by computer software. A first pair of programs is responsible for reducing the data in each run into tabular form. (See Tables 4, 10, and 16 for a summary of raw data.) The first column is time in seconds where $t = 0$ is the time when pressurization of Tank 2 begins. Notice that the pressure and temperature of the pressurant gas in Tank 1 is only noted during pressurization. The pressure in Tank 2 (noted as Fill tank) is given during the entire run with the in situ thermocouple. Although the data loggers collect almost three complete scans of data per second, data points are averaged down to integer-second points. This was necessary since each data logger scans at its own intrinsic speed although their internal clocks are initially synchronized. All temperatures are reported in degrees Kelvin and pressures in megabars. A table showing the location of each thermocouple in cylindrical coordinates is provided on the reduced data tables for convenience.

Table 3 — Index of Data Tables

(3)	(1)	(2)	Configuration Numbers in Table 1
	Table Number		Table Heading
4(A-J)	10(A-L)	16(A-I)	Temperature Data Tables (per scaling run)
5(A-I)	11(A-I)	17(A-H)	Inferred Pressurant Distribution (per scaling run)
6	12	18	Mean Value of All Quantities (per scaling configuration)
7	13	19	Normalized Mean Local Pressurant Fractions
8	14	20	Standard Deviation of Mean Local Pressurant Fraction
9	15	21	Deviations of Mean Local Pressurant Fractions

Note: Tables 4-21 appear at end of report.

A second pair of programs run on the minicomputer manipulates the reduced data tables from one test configuration into two new sets of tables. In the first set, for each test run, a table of inferred pressurant distribution is calculated. Time is given in seconds, temperature is in degrees centigrade, and other quantities are dimensionless. The first six columns give: time t ; molar mean temperature \bar{T} ; mean resident air temperature \bar{T}_a ; mean pressurant air temperature \bar{T}_p ; the dimensionless coefficient β ; and the ratio β/Θ . Columns 8 through 20 are the calculated pressurant fractions X_i at each of the 13 respective thermocouples, and column 7 is the mean pressurant fraction \bar{X} (see Tables 5, 11, and 17).

The second set consists of four groups of statistical tables calculated for each single test configuration. The first group of statistical tables (6, 12, and 18) consists of the mean values of all quantities described in the previous tables. A last column at dimensionless time, τ , is listed in column 21. The second group of statistical tables (7, 13, and 19) lists the normalized mean local pressurant fractions for each of the 13 thermocouple locations normalized by the mean pressurant fraction at the

end of dumping ($t = t_c$). Other tables (8, 14, and 20) indicate the calculated values for the statistical standard deviation of the mean local pressurant fractions. This value might be used to indicate a magnitude of precision in the preceding statistical charts. A last group of tables (9, 15, and 21) displays the pressurant deviation ξ , for each normalized time τ , in dimensionless increments of $+0.05$.

DISCUSSION

The reduced data for three obstructed air mixing configurations have been presented and can now be discussed to some degree. While it is not possible to verify the two modeling assumptions directly from the results, inspection of the Inferred Pressurant Distribution charts shows an almost constant value of beta during the filling interval for each run. This observation is in accord with the expected heat transfer between the walls and the surroundings for highly turbulent convective flow. While a convective heat transfer coefficient is not known for any position along the chamber wall, an averaged value over the entire chamber surface is presented and is now known to be constant while its value is required [15].

The thermodynamic treatment of the data no longer describes reality after complete mixing has been achieved. Now, variations in the temperature profile may be caused by several influences. First, flow inside the chamber eventually slows into a random laminar character as the gas kinetic energy is eventually dissipated by viscous drag forces. Second, the chamber itself may act as a heat sink for its contents and cause the gaseous contents to begin to cool. Last and not least of consequence, the datalogging system is known to drift ($<0.6^\circ\text{C}$) in an isothermal environment. Therefore, at some time after mixing is complete, a mixing profile is expected to show a deterioration of perfect mixing.

To characterize a mixing profile, we have plotted a dimensionless mixing deviation, δ , as a function of time.

$$\delta_i = \frac{X_i - \bar{X}}{\bar{X}} = \frac{X_i}{\bar{X}} - 1. \quad (12)$$

This value is effectively the difference between the actual pressurant concentration and its theoretical value if perfectly mixed normalized by its perfectly mixed value. Notice it is positive when pressure rich, negative when pressurant poor, and zero when theoretically mixed. Figures 4 to 6 show this plot at four locations for the test configurations 1 to 3, respectively. These graphs are the result of statistically averaged values of mixing deviation for runs with identical dump times for a given configuration. Inspection of their corresponding statistical standard deviation shows that the assorted peaks and curves before complete mixing are meaningful with good precision. For the purposes of the plotting software [16], it was necessary to indicate the right-hand limit of the commence of value opening as zero time in deference to previous practice.

Test configuration one is clearly shown to have the slowest, most stratified mixing profile. Here, one centered nozzle probably forms a wake as the discharged gases are reflected from the chamber floor. Flow visualization films by Stone show that the pressurant gas ceases to jet almost a foot above the floor underneath the nozzle. During the first few seconds, a thermocouple's mixing curve initially agrees with intuition, i.e., thermocouples close to the nozzle are pressurant rich and those further away are pressurant poor. As a wake develops and scatters, the chamber contents become temporarily stratified. The pressurant concentration at a location may alternate being pressurant rich and poor. Thermocouple number five is shown to be located inside the wake's origin. Since it is close to the nozzle it remains pressurant rich much longer than the other locations.

Configurations two and three exhibit a different approach to complete mixing. In these cases, the flow circulation from more than one nozzle appears to become so turbulent that a pattern much more complicated than a wake may exist and mixing is much more rapid with respect to their dumping times.

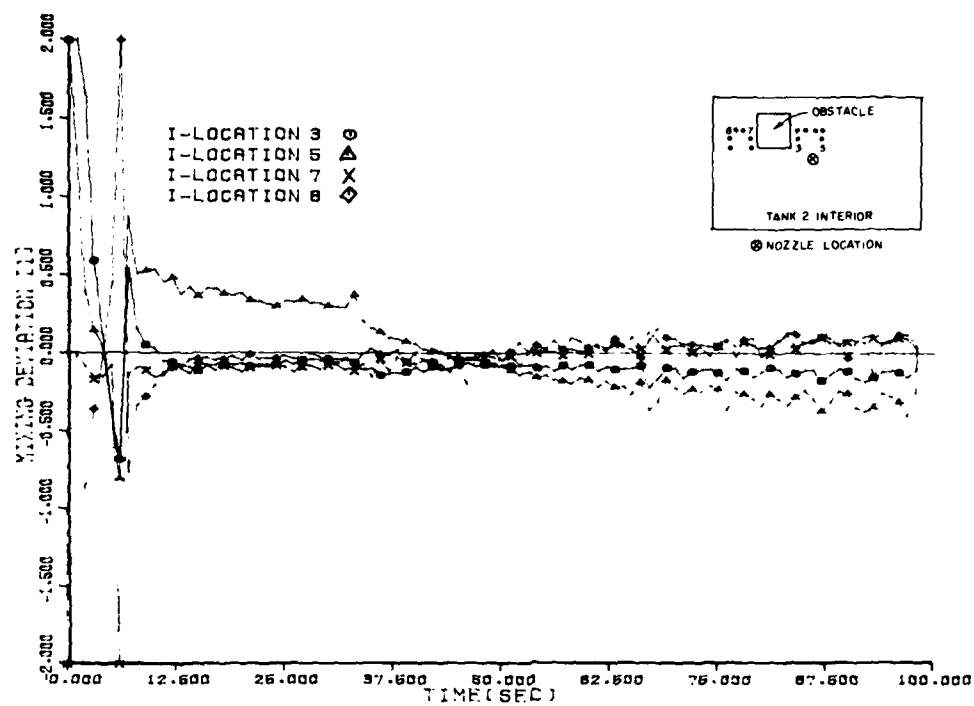


Fig. 4 — Test configuration one: one centered nozzle.
Dump time = 33.0

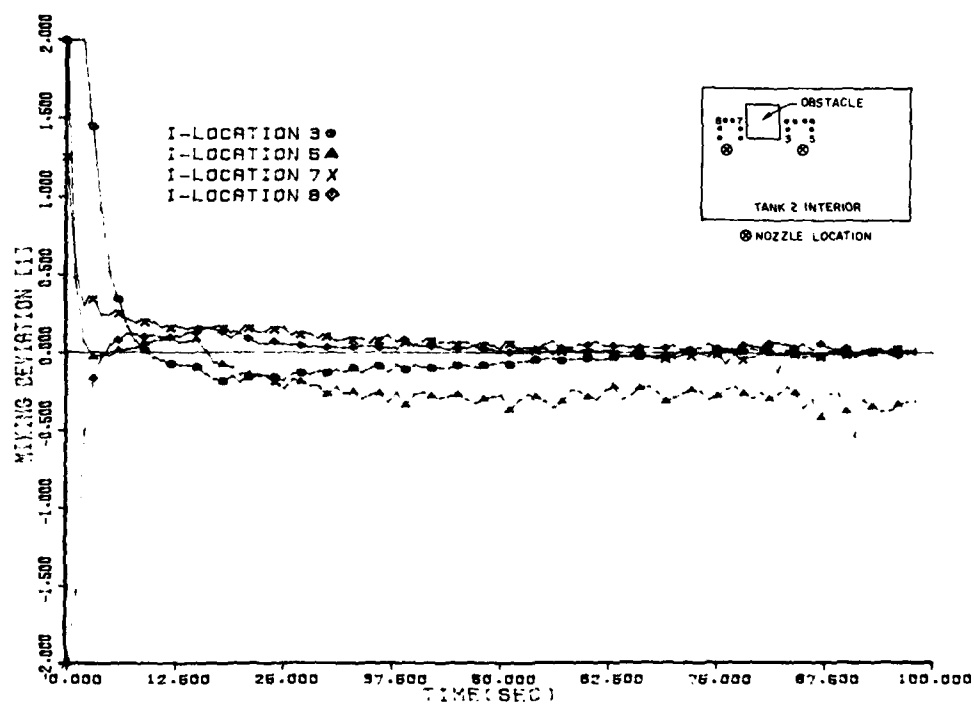


Fig. 5 — Test configuration two: two centered nozzles.
Dump time = 17.0

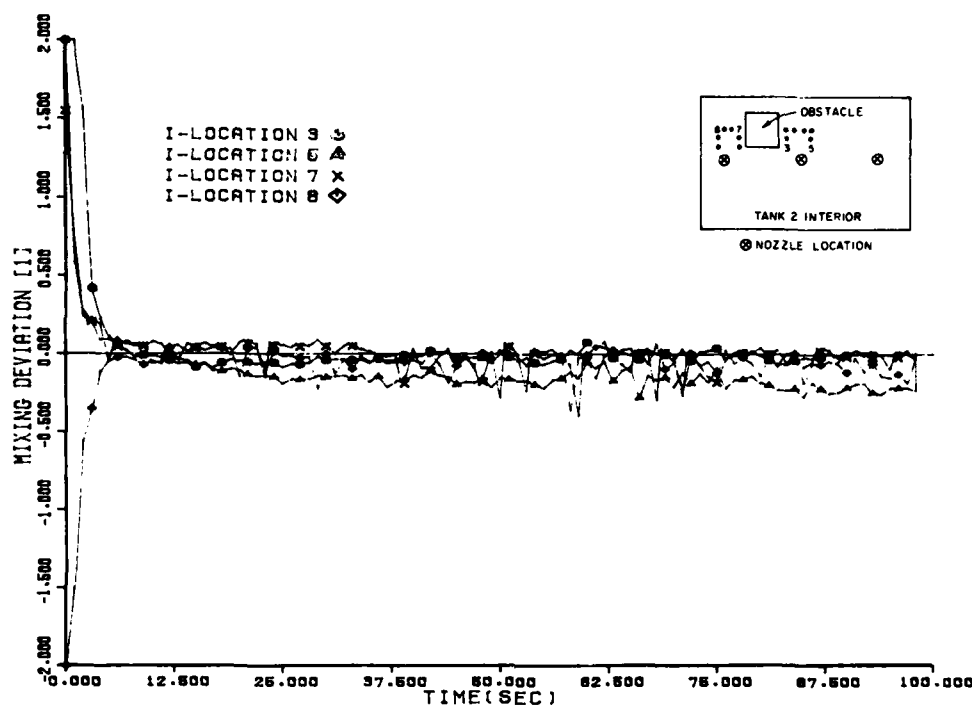


Fig. 6 — Test configuration three: three centered nozzles.
Dump time = 12.0

A scale-modeling hypothesis states for geometrically similar enclosures, the dimensionless pressurant deviation is a unique function of dimensionless time at homologous model and prototype points regardless of pressure level or pressurization rate [14]. These quantities have been defined earlier and are plotted in Figs. 7 to 9 corresponding to test configurations 1, 2, and 3. By hypothesis, these curves should look the same for any size chamber with similar geometry. In these graphs, the left-hand limit of the commence of valve opening is taken as zero dimensionless time, τ . τ is unity when the valve has been fully closed, i.e., one dump time. The data for these plots come from the same scaling runs as the previous graphs after being statistically combined by program CINST. Mixing profiles of the same type are seen in these graphs; however, the mixing which was done during valve opening is now observable. For our most hindered location studied, our data show that mixing is complete within $\tau = 1.1$. A more detailed description of mixing field would require more than the thirteen thermocouple locations studied.

Since these configurations vary by the effects of nozzle number and location, the flow and mixing profiles vary. The degree of clutter by which a particular interior location is characterized is seen to have two effects. One effect is how well enclosed, or isolated a location is from the pressurant flow. This effect hinders mixing. A second effect is observed where gas is forced around proximal obstacles. Here, clutter may aid mixing as eddies are formed inside flow boundary layers or outside jet gas entrainment boundary layers. This might be considered similar to baffling in a mixing tank. A method of quantifying degree of clutter which incorporates both of these effects is presently intuitive, at best. This method of mixing analysis is instrumental in measuring degree of clutter and final mixing time.

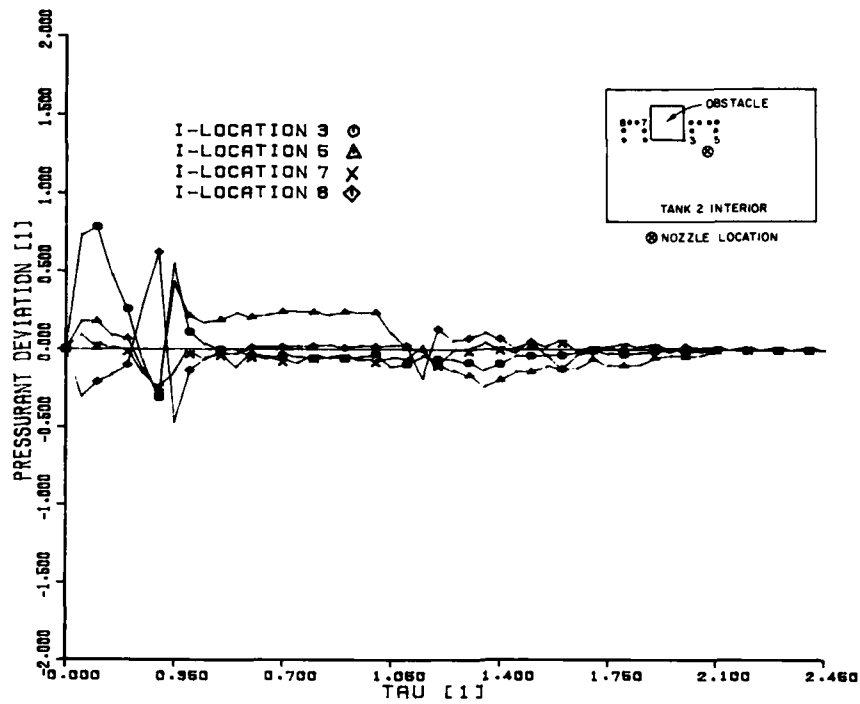


Fig. 7 — Test configuration one: one centered nozzle

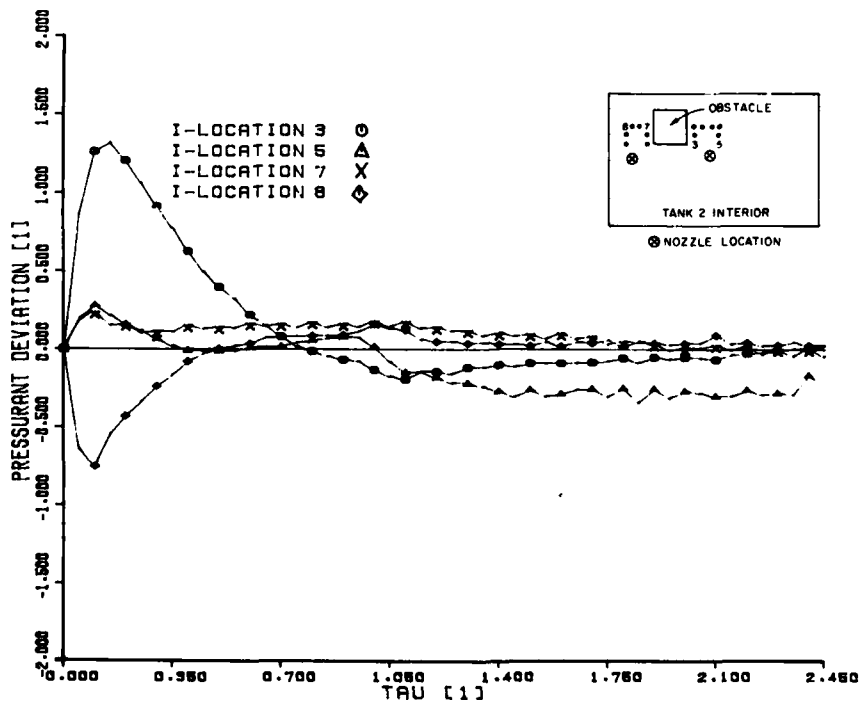


Fig. 8 — Test configuration two: two centered nozzles

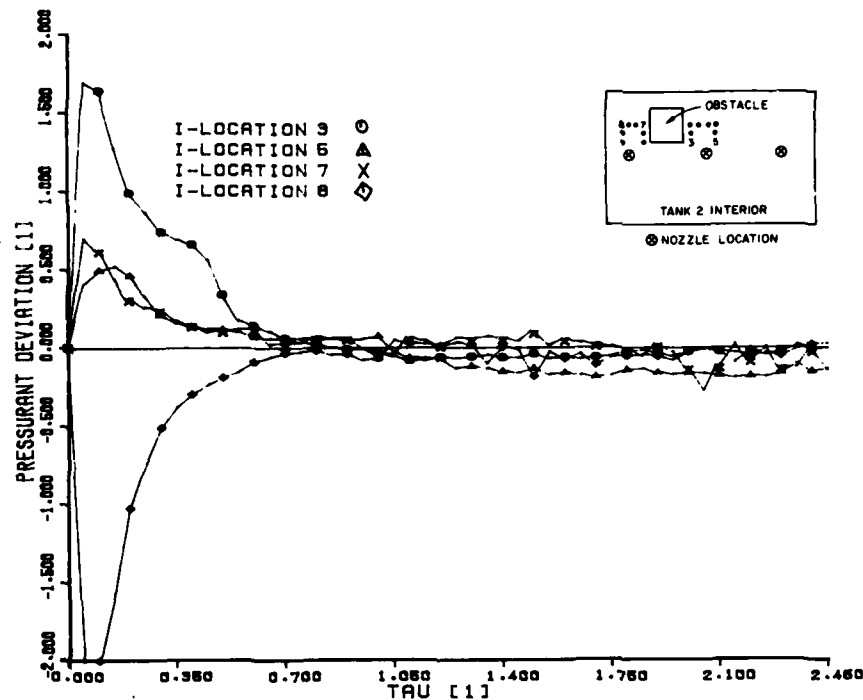


Fig. 9 - Test configuration three: three nozzles

CONCLUDING REMARKS

Presented are raw and reduced data from three cluttered air mixing experiments. The measurement of pressurant concentration distribution is based on temperature measurements in the mixing chamber. Although this is a relatively inexpensive method for gathering data from a number of enclosure points, it suffers from (a) the loss of precision due to modeling and thermodynamic assumptions and (b) the requirement for extended computer time to reduce the raw data. The first drawback can be alleviated by employing a more accurate method of monitoring pressurant inflow rate, and the second has been worked out as computer programs have become more versatile and efficient.

ACKNOWLEDGMENTS

We extend our appreciation to John Alexander and Tom Street for their electrical wizardry maintaining the electronic equipment for the NRL 5000-liter chamber and Ronald Gray III for his help running data reduction programs on the minicomputer. Finally, now that it is over, we forgive the minicomputer for providing countless hours of programming aggravation and repair servicing.

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16. Programs STATS and TAUPL written by S.R. Lustig.

Table 4A — Scaling Run 103, Test Configuration 3: Three 1.52 cm Nozzles

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 103															
PRESSURANT FILL- THERMOCOUPLES															
LOCATION 1															
TIME	P	1	2	3	4	5	6	7	8	9	10	11	12	13	COORDINATES
(SEC)	(BAR)	(DEG K)	(DEG K)	(DEG K)	(DEG K)	(DEG K)	(DEG K)	(DEG K)	(DEG K)	(DEG K)	(DEG K)	(DEG K)	(DEG K)	(DEG K)	(M) (DEG) (M)
-5	0.000	0.000	299.5	299.3	299.1	299.0	299.4	297.8	298.1	297.8	298.2	298.0	297.9	297.8	1 0.229 00 0.152
-4	0.000	0.000	299.5	299.3	299.1	299.0	299.4	297.8	298.1	297.8	298.2	298.0	297.9	297.8	2 0.229 00 0.152
-3	0.000	0.000	299.5	299.3	299.1	299.0	299.4	297.8	298.1	297.8	298.2	298.0	297.9	297.8	3 0.076 00 0.152
-2	0.000	0.000	299.5	299.3	299.1	299.0	299.4	297.8	298.1	297.8	298.2	298.0	297.9	297.8	4 0.102 00 0.076
-1	0.000	0.000	299.4	299.4	299.2	299.1	299.0	299.4	297.7	298.1	297.8	298.2	298.0	297.7	5 0.076 00 -0.076
0	0.378	290.9	299.5	299.3	299.2	299.1	299.0	299.4	297.9	298.1	297.8	298.2	298.0	297.7	6 0.152 00 0.152
1	0.673	344.3	300.5	300.9	303.0	303.0	301.2	299.8	301.4	299.9	300.5	299.7	299.5	298.8	7 0.229 00 0.762
2	0.612	290.6	304.4	305.9	303.8	303.1	303.6	306.4	302.5	305.7	303.4	304.7	303.6	303.4	8 0.229 00 0.591
3	0.649	286.0	308.5	310.4	303.7	309.8	307.9	310.6	306.5	309.4	306.8	308.6	306.9	307.8	9 0.076 00 -0.076
4	0.938	283.9	310.9	312.4	296.5	312.1	310.6	312.4	309.0	310.8	309.2	310.4	309.5	309.7	10 0.229 00 -0.076
5	0.938	282.9	311.9	313.5	312.8	312.7	311.5	313.4	310.2	311.6	310.6	311.8	310.7	310.9	11 0.152 00 0.762
6	0.706	281.4	313.0	314.1	313.7	313.8	312.7	314.1	311.0	312.3	311.4	312.3	311.7	311.9	12 0.229 00 0.514
7	0.542	279.9	313.3	314.7	313.1	314.0	312.4	313.8	311.2	312.2	311.6	313.1	311.7	311.5	13 0.229 00 0.838
8	0.486	279.0	313.6	314.5	313.8	314.0	313.0	313.8	311.4	312.2	311.8	313.2	311.8	311.9	
9	0.455	277.0	313.7	314.4	313.2	313.8	312.5	313.7	311.5	312.0	312.1	313.0	312.0	311.7	
10	0.447	276.6	313.6	314.5	313.2	313.8	312.5	313.4	311.5	312.0	312.1	313.0	312.0	311.7	
11	0.451	275.9	313.3	314.1	312.9	313.5	312.4	313.4	311.3	311.9	311.6	312.6	311.5	311.7	
12	0.484	285.3	313.4	313.8	313.3	313.5	312.2	313.6	311.4	311.6	311.6	312.5	311.6	311.7	
13	0.352	282.5	313.0	313.5	312.8	313.2	312.0	312.8	311.0	311.3	312.1	311.3	311.1	311.3	
14	0.366	281.5	312.4	312.7	311.9	312.2	311.0	312.1	310.6	310.7	310.9	311.7	310.9	310.8	
15	0.000	0.000	312.2	312.3	311.7	311.9	311.6	311.8	310.1	310.2	310.4	311.2	310.4	310.3	
16	0.000	0.000	311.8	312.0	311.5	311.5	311.6	311.2	309.7	309.8	310.1	310.9	310.1	309.8	
17	0.000	0.000	311.6	311.6	311.0	311.1	311.1	310.4	309.7	309.7	310.5	309.6	309.6	309.6	
18	0.000	0.000	311.3	311.3	310.9	311.0	311.0	310.9	308.9	309.4	309.4	310.2	309.3	309.3	
19	0.000	0.000	311.1	311.0	310.6	310.7	310.6	310.7	308.8	309.3	309.1	310.0	309.2	309.2	
20	0.000	0.000	310.7	310.8	310.2	310.3	310.6	310.3	308.4	309.0	308.9	309.9	308.7	309.0	
21	0.000	0.000	310.6	310.6	310.2	310.2	310.3	310.2	308.1	308.7	308.7	309.6	308.5	308.7	
22	0.000	0.000	310.4	310.3	310.0	310.0	310.1	310.0	307.8	308.5	308.5	309.4	308.4	308.0	
23	0.000	0.000	309.5	309.4	309.3	309.3	309.3	309.3	308.8	309.7	309.7	310.2	309.6	309.6	
24	0.000	0.000	308.8	308.5	308.3	308.1	308.3	308.4	306.1	306.8	306.3	307.9	306.6	306.5	
25	0.000	0.000	308.1	307.6	307.6	307.6	307.6	307.6	305.5	305.9	305.9	306.7	305.6	305.4	
26	0.000	0.000	307.0	306.3	306.5	306.6	306.6	306.6	304.7	305.2	304.9	305.7	305.2	304.7	
27	0.000	0.000	306.4	305.9	305.9	305.6	306.0	306.0	304.2	304.7	304.2	305.2	304.5	304.0	
28	0.000	0.000	305.8	305.7	305.4	305.1	305.5	305.5	303.8	304.0	303.9	304.8	304.3	303.6	
29	0.000	0.000	305.4	304.9	304.9	304.7	305.0	305.0	303.5	303.5	303.5	304.4	303.8	303.2	
30	0.000	0.000	304.9	304.4	304.4	304.1	304.5	304.5	303.0	303.0	303.0	303.7	303.3	302.8	
31	0.000	0.000	304.5	304.1	304.2	303.8	304.4	304.2	302.5	302.7	302.8	303.3	303.0	302.4	
32	0.000	0.000	304.1	303.8	303.9	303.5	304.0	304.0	302.4	302.4	302.5	303.0	302.6	302.2	
33	0.000	0.000	303.8	303.5	303.5	303.1	303.7	303.6	301.8	302.3	302.1	302.5	302.2	301.8	
34	0.000	0.000	303.3	303.1	303.0	302.8	303.2	303.1	301.3	301.3	301.6	302.2	301.8	301.5	
35	0.000	0.000	303.0	302.7	302.7	302.5	303.0	302.9	301.2	301.2	301.3	301.8	301.3	301.2	
36	0.000	0.000	302.8	302.5	302.4	302.3	302.9	302.6	300.9	301.2	301.0	301.5	301.1	300.9	
37	0.000	0.000	302.6	302.3	302.2	302.0	302.7	302.4	300.8	300.9	300.9	301.2	300.9	300.7	
38	0.000	0.000	302.5	302.2	302.2	302.0	302.7	302.4	300.7	300.8	300.8	301.1	300.8	300.6	
39	0.000	0.000	302.4	302.1	302.1	301.9	302.6	302.3	300.6	300.7	300.7	301.0	300.7	300.5	
40	0.000	0.000	302.3	302.0	302.0	301.8	302.5	302.2	300.5	300.6	300.6	300.9	300.6	300.4	
41	0.000	0.000	302.2	301.9	301.9	301.7	302.4	302.1	300.4	300.5	300.5	300.8	300.5	300.3	
42	0.000	0.000	302.1	301.8	301.8	301.6	302.3	302.0	300.3	300.4	300.4	300.7	300.4	300.2	
43	0.000	0.000	302.0	301.7	301.7	301.5	302.2	301.9	300.3	300.4	300.4	300.7	300.4	300.2	
44	0.000	0.000	301.9	301.6	301.6	301.4	302.1	301.8	300.2	300.3	300.3	300.6	300.3	300.1	
45	0.000	0.000	301.8	301.5	301.5	301.3	302.0	301.7	300.1	300.2	300.2	300.5	300.2	300.0	
46	0.000	0.000	301.7	301.4	301.4	301.2	301.9	301.6	300.0	300.1	300.1	300.4	300.1	299.9	
47	0.000	0.000	301.6	301.3	301.3	301.1	301.8	301.5	299.9	300.0	300.0	300.3	300.0	299.8	
48	0.000	0.000	301.5	301.2	301.2	301.0	301.7	301.4	299.8	299.9	299.9	300.2	299.9	299.7	
49	0.000	0.000	301.4	301.1	301.1	300.9	301.6	301.3	299.7	299.8	299.8	300.1	299.8	299.6	
50	0.000	0.000	301.3	301.0	301.0	300.8	301.5	301.2	299.6	299.7	299.7	300.0	299.7	299.5	
51	0.000	0.000	301.2	300.9	300.9	300.7	301.4	301.1	299.5	299.6	299.6	299.9	299.6	299.4	
52	0.000	0.000	301.1	300.8	300.8	300.6	301.3	301.0	299.4	299.5	299.5	299.8	299.5	299.3	
53	0.000	0.000	301.0	300.7	300.7	300.5	301.2	300.9	299.3	299.4	299.4	299.7	299.4	299.2	
54	0.000	0.000	300.9	300.6	300.6	300.4	301.1	300.8	299.2	299.3	299.3	299.6	299.3	299.1	
55	0.000	0.000	300.8	300.5	300.5	300.3	301.0	300.7	299.1	299.2	299.2	299.5	299.2	299.0	
56	0.000	0.000	300.7	300.4	300.4	300.2	300.9	300.6	299.0	299.1	299.1	299.4	299.1	298.9	
57	0.000	0.000	300.6	300.3	300.3	300.1	300.8	300.5	298.9	299.0	299.0	299.3	299.0	298.8	
58	0.000	0.000	300.5	300.2	300.2	300.0	300.7	300.4	298.8	298.9	298.9	299.2	298.9	298.7	
59	0.000	0.000	300.4	300.1	300.1	299.9	300.6	300.3	298.7	298.8	298.8	299.1	298.8	298.6	
60	0.000	0.000	300.3	300.0	300.0	299.8	300.5	300.2	298.6	298.7	298.7	299.0	298.7	298.5	
61	0.000	0.000	300.2	299.9	299.9	299.7	300.4	300.1	298.5	298.6	298.6	298.9	298.6	298.4	
62	0.000	0.000	300.1	299.8	299.8	299.6	300.3	300.0	298.4	298.5	298.5	298.8	298.5	298.3	
63	0.000	0.000	300.0	299.7	299.7	299.5	300.2	299.9	298.3	298.4	298.4	298.7	298.4	298.2	
64	0.000	0.000	299												

Table 4B — Scaling Run 104, Test Configuration 3: Three 1.52 cm Nozzles

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 104																
PRESSURANT FILL- THERMOCOUPLES																
FOU - TOTAL TANK																
LOCATION 1																
TIME	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T
(SEC)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)
-5	0.000	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9
-4	0.000	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9
-3	0.000	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9
-2	0.000	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9
-1	0.000	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9
0	6.364	291.2	1.048	300.0	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9
1	6.236	307.3	1.065	301.9	301.5	299.5	301.0	301.3	303.1	299.5	298.6	298.3	298.8	298.5	298.5	298.4
2	5.860	288.0	1.165	307.3	308.5	307.1	307.9	305.9	309.3	303.2	307.7	303.7	306.9	306.0	306.0	306.0
3	5.493	285.2	1.235	310.9	312.0	310.9	311.9	309.4	312.7	308.2	310.6	308.2	309.9	308.0	306.0	305.6
4	5.280	283.4	1.307	311.8	313.8	313.4	312.9	310.6	313.3	309.8	311.4	310.0	311.7	310.2	310.3	310.2
5	4.971	282.8	1.386	312.9	314.5	313.6	313.8	311.6	314.0	310.9	312.0	311.3	312.7	311.8	312.4	312.3
6	4.686	281.4	1.445	313.7	314.9	313.4	314.5	312.5	314.5	311.5	312.6	312.0	313.4	311.6	312.2	312.1
7	4.427	279.9	1.519	314.3	314.7	313.6	314.5	313.3	314.5	311.8	312.9	312.2	313.3	312.0	312.6	312.5
8	4.194	279.1	1.581	314.5	315.0	313.3	314.9	313.6	314.9	311.9	312.9	312.2	313.6	312.0	312.6	312.5
9	3.968	277.8	1.628	314.4	314.8	313.5	314.6	313.0	314.3	311.7	312.5	312.0	313.4	311.8	312.5	312.3
10	3.747	276.6	1.705	314.0	314.5	313.7	313.9	312.8	314.4	311.7	312.5	312.0	313.4	311.9	312.4	312.3
11	3.642	275.9	1.705	313.8	314.5	313.8	314.0	312.7	313.8	311.6	312.2	312.0	313.1	311.6	312.3	312.2
12	3.460	284.5	1.781	313.5	314.0	313.4	313.6	311.7	313.5	311.9	311.9	312.0	312.8	312.0	311.9	312.0
13	3.385	281.0	1.770	313.2	313.5	312.9	313.2	312.1	313.1	311.7	311.6	311.7	312.2	311.5	311.7	311.9
14	3.390	281.7	1.790	312.9	313.0	312.6	312.6	311.9	312.7	311.0	311.0	311.0	311.0	311.0	311.0	311.1
15	0.000	0.000	1.722	312.6	312.5	312.2	312.2	311.7	312.2	310.5	310.6	310.9	311.5	310.6	310.7	310.8
16	0.000	0.000	1.791	312.2	312.1	311.7	311.7	311.5	311.8	310.4	310.6	310.6	311.2	310.4	310.7	310.6
17	0.000	0.000	1.784	311.9	311.8	311.5	311.5	311.3	311.6	310.2	310.4	310.3	311.0	310.3	310.5	310.4
18	0.000	0.000	1.755	311.7	311.5	311.2	311.3	311.0	311.4	310.0	310.2	310.1	310.6	310.0	310.2	310.2
19	0.000	0.000	1.778	311.5	311.2	310.9	310.9	310.9	310.8	309.7	309.9	309.9	309.9	309.9	309.9	309.8
20	0.000	0.000	1.791	311.1	310.9	310.4	310.4	310.7	310.4	309.3	309.7	309.6	310.2	309.7	309.7	309.5
21	0.000	0.000	1.758	310.9	310.7	310.3	310.2	310.4	310.2	309.2	309.6	309.5	310.2	309.5	309.6	309.5
22	0.000	0.000	1.777	310.6	310.5	310.1	309.9	310.2	309.9	309.0	309.5	309.3	309.9	309.4	309.5	309.2
23	0.000	0.000	1.774	309.4	309.1	309.2	308.7	309.1	308.8	307.9	308.7	308.1	308.4	308.2	308.4	308.0
24	0.000	0.000	1.774	308.5	308.0	307.8	307.6	308.1	307.9	307.0	307.6	307.1	307.2	307.4	307.5	306.8
25	0.000	0.000	1.751	308.1	307.5	307.5	307.4	307.5	307.6	306.2	306.6	306.1	306.7	306.5	306.6	306.1
26	0.000	0.000	1.763	307.4	306.6	306.6	306.6	306.6	306.6	305.3	305.8	305.3	305.9	305.7	305.7	305.1
27	0.000	0.000	1.736	306.7	306.4	306.0	306.2	306.1	306.2	304.5	305.1	304.7	305.3	304.9	304.8	304.4
28	0.000	0.000	1.744	306.1	305.8	305.7	305.7	305.9	305.7	304.2	304.5	304.4	305.0	304.5	304.2	303.8
29	0.000	0.000	1.763	305.8	305.5	305.3	305.2	305.4	305.3	303.7	303.9	303.9	304.5	304.1	303.6	303.3
30	0.000	0.000	1.766	305.3	305.1	304.8	304.7	305.0	304.9	303.4	303.6	303.6	304.2	303.8	303.4	303.1
31	0.000	0.000	1.744	304.9	304.7	304.5	304.4	304.6	304.6	303.1	303.3	303.3	303.8	303.5	303.1	302.9
32	0.000	0.000	1.733	304.5	304.4	304.2	303.9	304.4	304.4	302.9	303.1	303.0	303.4	303.1	302.8	302.7
33	0.000	0.000	1.761	304.2	303.9	303.8	303.6	304.0	304.0	302.4	302.7	302.4	303.0	302.6	302.4	302.3
34	0.000	0.000	1.747	303.8	303.5	303.4	303.2	303.7	303.6	302.1	302.4	302.1	302.6	302.3	302.0	302.0
35	0.000	0.000	1.760	303.4	303.2	303.1	303.0	303.3	303.2	301.6	302.0	301.7	302.3	301.8	301.6	301.4
36	0.000	0.000	1.755	303.1	302.9	302.9	302.7	303.1	303.0	301.3	301.6	301.5	302.0	301.5	301.3	301.3
37	0.000	0.000	1.755	303.0	302.7	302.6	302.6	303.1	302.9	301.2	301.3	301.2	301.7	301.3	301.2	301.1
38	0.000	0.000	1.729	302.7	302.5	302.4	302.4	302.9	302.7	301.2	301.2	301.0	301.4	301.0	301.0	301.2
39	0.000	0.000	1.752	302.6	302.4	302.4	302.2	302.9	302.6	301.0	301.0	300.9	301.2	300.9	300.9	300.9
40	0.000	0.000	1.735	302.5	302.3	302.3	302.1	302.9	302.4	300.9	300.9	300.9	301.2	300.9	300.8	301.0
41	0.000	0.000	1.754	302.4	302.2	302.2	302.0	302.7	302.4	300.9	300.9	300.9	301.2	300.9	300.8	300.8

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Table 4D — Scaling Run 106, Test Configuration 3: Three 1.52 cm Nozzles

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 106														COORDINATES					
TIME P (SEC)	T (DEC K)	P (BAR)	FILL- TANK	PRESSURANT FOR - TOTAL	THERMOCOUPLES													I (M)	R THETA 2 (M)
					LOCATION 1														
					T (DEC K)														
297.0	296.8	296.7	296.7	294.6	296.6	296.9	295.1	295.5	295.2	295.7	295.4	295.2	295.7	295.2	295.0	1	0.229	0.0	152
296.9	296.8	296.7	296.7	294.6	296.6	296.9	295.1	295.5	295.2	295.7	295.4	295.2	295.7	295.2	295.0	2	0.229	0.0	000
296.9	296.8	296.7	296.7	294.6	296.6	296.9	295.1	295.5	295.2	295.7	295.4	295.2	295.7	295.2	295.0	3	0.076	0.0	152
296.9	296.8	296.7	296.7	294.6	296.6	296.9	295.1	295.5	295.2	295.7	295.4	295.2	295.7	295.2	295.0	4	0.102	0.0	076
297.0	296.8	296.7	296.7	294.6	296.6	296.9	295.1	295.5	295.2	295.7	295.4	295.2	295.7	295.2	295.0	5	0.076	0.0	152
297.4	297.0	296.7	296.7	294.6	296.6	296.9	295.1	295.5	295.2	295.7	295.4	295.2	295.7	295.2	295.0	6	0.152	0.0	076
301.7	302.4	299.6	301.9	298.7	303.5	299.2	307.8	299.2	307.8	299.2	307.8	299.2	307.8	299.2	299.4	7	0.229	0.0	762
304.9	306.5	305.0	306.0	301.4	306.6	302.4	304.8	302.8	304.8	302.8	304.8	302.8	304.8	302.8	303.1	8	0.229	0.0	996
308.3	309.7	309.1	309.5	304.5	309.9	305.3	307.5	305.3	307.5	305.3	307.5	305.3	307.5	305.3	305.8	9	0.076	0.0	076
310.1	311.1	310.9	310.9	306.6	311.3	307.5	308.9	308.0	307.5	308.9	308.0	307.5	308.9	308.0	308.1	10	0.229	0.0	076
310.9	311.7	311.6	311.6	307.3	311.7	308.4	309.3	308.6	309.3	308.6	309.3	308.6	309.3	308.6	308.7	11	0.230	0.0	076
311.5	312.3	311.4	311.4	308.1	312.3	308.9	310.2	309.4	310.2	309.4	310.2	309.4	310.2	309.4	309.7	12	0.152	0.0	076
311.6	312.3	311.3	311.3	308.6	311.6	309.1	310.1	309.6	310.1	309.6	310.1	309.6	310.1	309.6	309.8	13	0.229	0.0	914
311.3	312.4	311.3	311.3	308.2	311.3	308.2	310.2	309.6	310.2	309.6	310.2	309.6	310.2	309.6	309.8	14	0.229	0.0	838
311.6	311.8	311.6	311.6	308.8	311.6	309.3	309.8	309.3	309.8	309.3	309.8	309.3	309.8	309.3	309.8	15	0.229	0.0	000
311.6	311.8	311.6	311.6	308.8	311.6	309.3	309.8	309.3	309.8	309.3	309.8	309.3	309.8	309.3	309.8	16	0.229	0.0	000
311.6	311.8	311.6	311.6	308.8	311.6	309.3	309.8	309.3	309.8	309.3	309.8	309.3	309.8	309.3	309.8	17	0.229	0.0	000
311.3	311.2	310.9	311.1	308.3	311.3	308.8	309.5	308.7	309.5	308.7	309.5	308.7	309.5	308.7	309.5	18	0.229	0.0	000
310.8	310.7	310.5	310.5	307.8	310.5	307.8	310.5	307.8	310.5	307.8	310.5	307.8	310.5	307.8	308.4	19	0.229	0.0	000
310.0	309.8	309.8	309.8	307.6	309.8	307.6	309.8	307.6	309.8	307.6	309.8	307.6	309.8	307.6	308.1	20	0.229	0.0	000
309.7	309.4	308.9	308.9	307.2	309.4	307.2	309.4	307.2	309.4	307.2	309.4	307.2	309.4	307.2	307.8	21	0.229	0.0	000
309.4	309.1	308.7	308.7	306.9	309.1	306.9	309.1	306.9	309.1	306.9	309.1	306.9	309.1	306.9	307.4	22	0.229	0.0	000
309.2	308.8	308.7	308.8	306.9	309.2	306.9	309.2	306.9	309.2	306.9	309.2	306.9	309.2	306.9	307.1	23	0.229	0.0	000
308.9	308.5	308.4	308.4	306.7	308.9	306.7	308.9	306.7	308.9	306.7	308.9	306.7	308.9	306.7	306.6	24	0.229	0.0	000
308.7	308.1	308.0	308.1	306.4	308.7	306.4	308.7	306.4	308.7	306.4	308.7	306.4	308.7	306.4	306.5	25	0.229	0.0	000
308.4	308.1	308.0	308.0	306.3	308.4	306.3	308.4	306.3	308.4	306.3	308.4	306.3	308.4	306.3	306.1	26	0.229	0.0	000
308.2	307.8	307.7	307.7	306.3	308.2	306.3	308.2	306.3	308.2	306.3	308.2	306.3	308.2	306.3	306.1	27	0.229	0.0	000
307.0	306.6	306.4	306.6	305.1	307.0	305.1	307.0	305.1	307.0	305.1	307.0	305.1	307.0	305.1	304.6	28	0.229	0.0	000
306.0	305.3	305.3	305.3	304.0	306.0	304.0	306.0	304.0	306.0	304.0	306.0	304.0	306.0	304.0	303.8	29	0.229	0.0	000
305.1	304.4	304.6	304.6	303.1	305.1	303.1	305.1	303.1	305.1	303.1	305.1	303.1	305.1	303.1	302.9	30	0.229	0.0	000
304.5	303.6	304.1	303.5	302.4	304.5	302.4	304.5	302.4	304.5	302.4	304.5	302.4	304.5	302.4	302.2	31	0.229	0.0	000
303.8	302.1	302.6	302.6	302.3	303.8	302.3	303.8	302.3	303.8	302.3	303.8	302.3	303.8	302.3	302.1	32	0.229	0.0	000
303.4	302.5	303.1	302.7	301.9	303.4	301.9	303.4	301.9	303.4	301.9	303.4	301.9	303.4	301.9	301.4	33	0.229	0.0	000
302.9	302.5	303.1	302.7	301.5	302.9	301.5	302.9	301.5	302.9	301.5	302.9	301.5	302.9	301.5	300.7	34	0.229	0.0	000
302.4	302.2	302.2	301.8	301.0	302.4	301.0	302.4	301.0	302.4	301.0	302.4	301.0	302.4	301.0	300.2	35	0.229	0.0	000
302.1	301.6	302.0	301.4	300.6	302.1	300.6	302.1	300.6	302.1	300.6	302.1	300.6	302.1	300.6	300.1	36	0.229	0.0	000
301.8	301.3	301.6	301.2	300.4	301.8	300.4	301.8	300.4	301.8	300.4	301.8	300.4	301.8	300.4	299.9	37	0.229	0.0	000
301.3	300.9	301.0	300.8	300.2	301.3	300.2	301.3	300.2	301.3	300.2	301.3	300.2	301.3	300.2	299.5	38	0.229	0.0	000
300.9	300.5	300.5	300.3	299.9	300.9	299.9	300.9	299.9	300.9	299.9	300.9	299.9	300.9	299.9	299.4	39	0.229	0.0	000
300.6	300.2	300.3	300.1	299.7	300.6	299.7	300.6	299.7	300.6	299.7	300.6	299.7	300.6	299.7	299.1	40	0.229	0.0	000
300.3	300.1	300.0	299.9	299.5	300.3	299.5	300.3	299.5	300.3	299.5	300.3	299.5	300.3	299.5	298.4	41	0.229	0.0	000
300.2	299.9	299.8	299.8	299.3	300.2	299.3	300.2	299.3	300.2	299.3	300.2	299.3	300.2	299.3	298.3	42	0.229	0.0	000
300.0	299.7	299.5	299.5	299.2	300.0	299.2	300.0	299.2	300.0	299.2	300.0	299.2	300.0	299.2	298.0	43	0.229	0.0	000
299.8	299.5	299.5	299.3	299.0	299.8	299.0	299.8	299.0	299.8	299.0	299.8	299.0	299.8	299.0	298.0	44	0.229	0.0	000
299.6	299.4	299.4	299.3	299.0	299.6	299.0	299.6	299.0	299.6	299.0	299.6	299.0	299.6	299.0	297.9	45	0.229	0.0	000

Table 4E — Sealing Run 107, Test Configuration 3: Three 1.52 cm Nozzles

S C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107										COORDINATES									
PRESSURANTY FILL- THERMOCOUPLES																			
LOCATION 1																			
T (DEG K)																			
TIME	P	T	P	T	P	T	P	T	P	I	R	THETA	Z						
(SEC)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(H)	(H)	(DEG)	(H)						
-5	0.000	299.6	0.000	299.6	0.000	299.6	0.000	299.6	0.000	1	0.229	00	0.132						
-4	0.000	299.6	0.000	299.6	0.000	299.6	0.000	299.6	0.000	2	0.229	00	0.000						
-3	0.000	299.6	0.000	299.6	0.000	299.6	0.000	299.6	0.000	3	0.076	00	0.132						
-2	0.000	299.6	0.000	299.6	0.000	299.6	0.000	299.6	0.000	4	0.102	00	0.076						
-1	0.000	299.6	0.000	299.6	0.000	299.6	0.000	299.6	0.000	5	0.076	00	-0.076						
0	6.308	291.7	1.039	299.5	299.5	299.5	299.5	299.5	299.5	6	0.132	00	0.132						
1	6.160	301.8	1.039	299.5	299.5	299.5	299.5	299.5	299.5	7	0.229	00	0.762						
2	5.904	288.9	1.153	307.6	309.3	308.0	308.0	308.0	308.0	8	0.229	00	0.991						
3	5.335	286.2	1.235	311.0	312.1	311.9	312.1	311.9	312.1	9	0.076	00	-0.076						
4	5.214	285.0	1.337	311.9	313.4	312.8	313.2	312.8	313.2	10	0.229	00	-0.076						
5	4.923	283.5	1.466	313.3	314.1	313.9	314.1	313.9	314.1	11	0.132	00	0.762						
6	4.636	282.1	1.467	313.8	314.2	314.2	314.2	314.2	314.2	12	0.229	00	0.914						
7	4.453	281.1	1.521	314.3	314.5	314.8	314.8	314.8	314.8	13	0.229	00	0.838						
8	4.236	280.2	1.581	314.2	315.0	314.5	314.6	314.2	314.5										
9	4.015	279.0	1.617	314.1	314.8	314.3	314.3	314.2	314.3										
10	3.807	277.9	1.687	313.9	314.5	313.8	313.8	313.7	313.8										
11	3.617	277.3	1.745	313.8	314.3	313.7	313.7	313.6	313.7										
12	3.458	283.4	1.778	313.5	313.8	313.3	313.3	313.2	313.3										
13	3.392	282.0	1.817	312.9	312.6	312.7	312.1	312.8	311.2										
14	3.414	283.4	1.780	312.6	312.3	312.3	312.0	312.3	310.9										
15	0.000	0.000	1.798	312.3	312.4	312.0	311.8	312.1	310.4										
16	0.000	0.000	1.735	312.0	312.1	311.7	311.6	311.9	310.6										
17	0.000	0.000	1.790	311.9	311.7	311.5	311.2	311.3	309.9										
18	0.000	0.000	1.791	311.6	311.4	311.3	311.1	311.3	309.2										
19	0.000	0.000	1.789	311.2	311.1	310.9	310.7	310.9	308.6										
20	0.000	0.000	1.781	311.0	310.9	310.4	310.3	310.4	308.6										
21	0.000	0.000	1.774	310.8	310.5	310.3	310.4	310.2	308.2										
22	0.000	0.000	1.782	310.4	310.3	309.8	310.1	310.2	308.9										
23	0.000	0.000	1.784	309.4	309.4	308.9	309.3	308.8	307.1										
24	0.000	0.000	1.769	308.5	308.2	308.0	307.9	308.1	306.6										
25	0.000	0.000	1.788	307.8	307.3	307.2	307.0	307.3	305.5										
26	0.000	0.000	1.777	307.0	306.4	306.6	306.4	306.3	304.9										
27	0.000	0.000	1.795	306.6	305.9	305.9	305.9	306.0	304.3										
28	0.000	0.000	1.786	305.9	305.3	305.7	305.3	305.6	304.4										
29	0.000	0.000	1.760	305.7	305.2	305.3	305.1	305.2	303.4										
30	0.000	0.000	1.785	305.2	304.7	304.8	304.5	304.9	303.2										
31	0.000	0.000	1.772	304.8	304.4	304.4	304.3	304.2	302.9										
32	0.000	0.000	1.761	304.5	304.0	304.2	304.2	304.2	302.6										
33	0.000	0.000	1.759	304.0	303.6	303.6	303.8	303.8	302.3										
34	0.000	0.000	1.768	303.5	303.2	303.2	303.1	303.3	301.7										
35	0.000	0.000	1.785	303.3	303.0	303.0	302.7	303.1	301.5										
36	0.000	0.000	1.772	302.9	302.8	302.7	302.9	302.9	301.3										
37	0.000	0.000	1.790	302.9	302.8	302.4	302.7	302.7	301.0										
38	0.000	0.000	1.768	302.6	302.4	302.4	302.3	302.6	300.9										
39	0.000	0.000	1.760	302.5	302.3	302.3	302.2	302.6	300.9										
40	0.000	0.000	1.759	302.4	302.2	302.1	302.0	302.3	300.5										
41	0.000	0.000	1.748	302.3	302.0	302.0	302.0	302.0	300.3										
42	0.000	0.000	1.739	302.2	301.8	301.8	301.7	302.4	300.3										
43	0.000	0.000	1.740	302.0	301.7	301.7	301.6	302.0	300.3										
44	0.000	0.000	1.740	302.0	301.7	301.8	301.6	302.4	300.3										
45	0.000	0.000	1.740	302.0	301.7	301.8	301.6	302.4	300.3										

Table 4F — Scaling Run 109, Test Configuration 3: Three 1.52 cm Nozzles

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 109																
PRESSURANT FILL- THERMOCOUPLES																
LOCATION 1																
T (DEG K)																
TIME	P	T	P	1	2	3	4	5	6	7	8	9	10	11	12	13
(SEC)	(BAR)	(DEG K)	(BAR)													
-5	0.000	0.00	1.935	301.2	301.2	301.2	301.0	300.0	301.2	299.6	300.0	299.6	300.2	300.0	299.0	299.7
-4	0.000	0.00	1.933	301.3	301.2	301.2	301.0	300.0	301.2	299.7	300.0	299.5	300.2	299.9	299.8	299.9
-3	0.000	0.00	1.967	301.3	301.2	301.2	301.0	300.0	301.2	299.6	300.0	299.6	300.2	300.0	299.7	299.6
-2	0.000	0.00	1.946	301.2	301.2	301.2	301.0	300.0	301.2	299.7	300.0	299.6	300.2	299.9	299.8	299.7
-1	0.000	0.00	1.948	301.2	301.2	301.2	301.0	300.0	301.2	299.6	300.0	299.5	300.3	299.9	299.7	299.7
0	6.398	293.2	1.948	301.2	301.2	301.2	301.0	300.0	301.2	299.6	300.0	299.5	300.2	299.9	299.8	299.7
1	6.363	304.5	1.966	303.0	302.9	302.2	302.5	302.3	303.3	300.5	304.0	302.4	302.9	302.4	302.0	301.3
2	6.008	289.9	1.143	307.6	309.1	307.0	308.7	306.1	309.7	304.9	308.1	305.7	307.0	306.2	306.3	305.7
3	5.634	286.7	1.226	311.6	312.9	312.4	312.7	309.0	313.4	308.7	311.0	309.1	310.5	309.5	309.7	309.4
4	5.307	284.6	1.326	313.6	314.9	315.2	314.9	312.1	315.1	311.1	311.2	313.0	311.2	312.0	311.7	311.7
5	5.003	283.7	1.396	314.6	315.3	315.5	315.3	313.1	315.6	312.2	313.7	312.4	313.8	312.5	313.0	312.9
6	4.723	282.2	1.469	315.4	316.0	315.0	315.9	314.3	315.9	313.1	314.3	313.1	314.5	312.9	313.6	313.6
7	4.472	280.0	1.525	315.4	315.6	315.6	315.4	314.5	315.7	313.2	314.3	313.4	314.6	313.5	313.9	313.8
8	4.224	279.7	1.584	315.7	315.9	315.0	315.8	314.7	316.0	312.5	314.1	313.4	314.6	313.5	313.8	313.8
9	4.074	278.5	1.629	315.3	315.9	315.7	315.5	314.0	315.3	313.2	313.8	313.4	314.6	313.6	313.7	313.6
10	3.861	277.5	1.688	315.2	315.8	315.5	315.3	314.1	315.3	313.0	314.1	313.2	314.7	313.5	313.8	313.6
11	3.663	276.9	1.743	321.2	320.6	315.2	323.1	322.1	323.1	312.1	313.8	313.2	314.5	313.5	311.8	313.6
12	3.360	286.0	1.786	314.7	315.2	314.9	314.9	313.3	314.6	312.0	313.7	313.3	314.3	313.5	313.5	313.6
13	3.438	284.1	1.795	314.5	314.9	314.4	314.4	313.1	314.2	312.0	312.5	312.4	313.4	312.4	312.6	312.3
14	3.413	284.5	1.811	314.5	314.9	314.1	314.1	313.0	313.9	311.7	312.3	312.4	313.4	312.4	312.2	312.0
15	0.000	0.00	1.799	314.0	314.2	313.0	313.0	312.0	313.7	311.2	311.6	311.9	312.9	311.8	311.7	311.6
16	0.000	0.00	1.793	313.7	313.9	313.5	313.5	312.6	313.4	310.8	311.4	311.6	312.5	311.5	311.3	311.1
17	0.000	0.00	1.791	313.3	313.5	313.2	313.2	312.5	313.1	310.5	311.1	311.3	312.3	311.2	311.1	310.8
18	0.000	0.00	1.810	313.3	313.2	312.8	312.8	312.3	312.8	310.3	311.0	311.1	312.1	310.9	310.9	310.8
19	0.000	0.00	1.773	313.0	312.9	312.5	312.5	312.1	312.5	309.9	310.0	310.9	310.9	310.4	310.5	310.3
20	0.000	0.00	1.797	312.0	312.9	312.5	312.5	312.1	312.5	309.5	310.7	310.7	311.5	310.2	310.2	309.8
21	0.000	0.00	1.797	312.0	312.6	312.2	312.2	311.9	312.3	309.5	310.7	310.7	311.5	310.2	310.2	309.8
22	0.000	0.00	1.785	312.5	312.2	311.9	311.9	311.8	312.0	309.4	310.5	310.5	311.3	310.1	310.1	309.6
27	0.000	0.00	1.782	311.3	311.0	310.0	310.0	310.0	310.9	308.8	309.8	309.8	310.3	309.4	309.3	308.8
32	0.000	0.00	1.779	310.5	309.9	310.2	309.8	309.9	310.0	308.0	309.2	308.4	309.3	308.7	308.6	308.0
37	0.000	0.00	1.770	303.5	308.9	309.2	308.7	309.0	308.9	307.0	308.2	307.6	308.2	307.7	307.7	306.9

(Table continues)

Table 4F — Scaling Run 109, Test Configuration 3: Three 1.52 cm Nozzles (Continued)

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107															
PRESSURANT		FILL-		THERMOCOUPLES		LOCATION 1		LOCATION 2		LOCATION 3		LOCATION 4		LOCATION 5	
FOR - TOTAL		TANK		P		T		T		T		T		T	
TIME	(SEC)	(BAR)	(DEC K)	(BAR)	(DEC K)	(BAR)	(DEC K)	(BAR)	(DEC K)	(BAR)	(DEC K)	(BAR)	(DEC K)	(BAR)	(DEC K)
42	000	1.768	308.1	308.4	307.0	308.1	308.4	306.5	307.2	306.6	307.2	306.9	306.7	306.3	306.3
47	000	1.784	308.1	307.9	307.4	307.7	307.8	305.8	306.6	305.9	306.4	305.3	306.4	305.3	305.6
52	000	1.782	307.5	307.0	306.7	307.0	307.4	305.2	306.1	305.4	306.3	305.8	305.3	305.8	305.1
57	000	1.757	307.1	306.6	306.8	306.6	306.9	304.8	305.5	305.0	305.9	305.3	305.9	305.3	304.1
62	000	1.789	306.7	306.6	306.4	306.6	306.6	304.5	305.1	304.8	305.2	304.6	304.6	304.6	304.2
67	000	1.761	306.2	306.6	306.1	305.7	305.9	306.2	304.4	304.8	304.5	305.2	304.7	304.6	304.2
72	000	1.775	305.9	305.8	305.9	305.5	305.8	305.9	304.0	304.6	304.0	304.9	304.5	304.4	303.9
82	000	1.775	305.6	305.3	305.3	305.1	305.3	305.4	303.8	304.1	303.8	304.3	304.0	303.8	303.7
92	000	1.785	305.2	305.0	304.8	305.0	305.1	303.4	303.8	303.6	304.0	303.8	303.3	303.3	303.3
102	000	1.768	304.9	304.5	304.7	304.5	304.8	304.8	302.1	303.5	303.1	303.4	303.4	303.1	303.0
112	000	1.766	304.6	304.5	304.4	304.3	304.5	304.5	302.9	303.1	302.7	303.1	302.9	302.8	302.8
122	000	1.769	304.4	304.2	304.2	304.1	304.5	304.4	302.7	303.0	302.7	303.2	303.0	302.7	302.7
132	000	1.767	304.1	304.0	304.0	303.9	304.2	304.0	302.3	302.8	302.5	303.1	302.7	302.5	302.5
142	000	1.772	304.0	303.8	303.9	303.8	304.0	303.9	302.3	302.6	302.4	302.9	302.5	302.3	302.3
152	000	1.757	303.9	303.8	303.8	303.6	303.9	303.8	302.2	302.4	302.3	302.7	302.4	302.2	302.2
162	000	1.758	303.8	303.6	303.7	303.5	303.8	303.8	302.1	302.3	302.2	302.5	302.3	302.2	302.1
172	000	1.776	303.7	303.5	303.6	303.4	303.6	302.0	302.2	302.2	302.4	302.2	302.0	302.0	302.0
182	000	1.768	303.6	303.4	303.4	303.3	303.6	303.5	301.9	302.1	302.2	302.4	302.2	301.8	301.9
192	000	1.763	303.5	303.4	303.4	303.3	303.5	303.5	301.9	302.0	302.2	302.3	302.0	301.8	301.9
202	000	1.760	303.5	303.3	303.3	303.1	303.5	303.5	301.8	302.0	302.1	302.2	302.0	301.7	301.8
212	000	1.764	303.4	303.2	303.2	303.1	303.4	303.4	301.8	302.0	302.1	302.2	302.0	301.7	301.8
222	000	1.763	303.3	303.2	303.2	303.1	303.5	303.3	301.7	301.9	302.0	302.1	302.0	301.7	301.8
232	000	1.780	303.3	303.1	303.1	303.0	303.5	303.3	301.7	301.8	302.0	302.1	302.0	301.6	301.7
242	000	1.771	303.3	303.1	303.1	303.0	303.3	303.3	301.7	301.8	302.0	302.1	301.8	301.5	301.6
252	000	1.779	303.3	303.1	303.1	303.0	303.3	303.3	301.7	301.7	302.0	302.0	301.9	301.5	301.6
262	000	1.761	303.2	303.1	303.1	303.0	303.3	303.3	301.6	301.7	302.0	302.0	301.9	301.5	301.6
272	000	1.765	303.1	303.1	303.1	303.0	303.3	303.1	301.6	301.6	301.9	302.0	301.8	301.5	301.6
282	000	1.766	303.1	303.1	303.1	303.0	303.3	303.1	301.6	301.6	301.9	302.0	301.8	301.5	301.5
292	000	1.760	303.1	303.1	303.0	303.0	303.3	303.1	301.5	301.6	301.8	302.0	301.7	301.5	301.5
302	000	1.766	303.1	303.1	303.0	303.0	303.3	303.1	301.5	301.5	301.8	302.0	301.7	301.4	301.5

Table 4G — Scaling Run 113, Test Configuration 3: Three 1.52 cm Nozzles

TIME (SEC)	P (BAR)	T (DEG K)	FILL- PRESSURANT F00 - TOTAL	TANK LOCATION I	THERMOCOUPLES Y(DEG K)	COORDINATES												
						1	2	3	4	5	6	7	8	9	10	11	12	13
-5	1.038	300.1	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9
-4	1.039	300.2	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9
-3	1.078	300.1	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9
-2	1.047	300.1	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9
-1	1.060	300.2	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9
0	1.063	300.2	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9
1	1.074	300.1	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9	300.0	299.9
2	1.131	302.3	304.5	301.4	304.5	303.5	306.1	304.2	308.5	305.2	306.6	305.2	306.6	305.2	306.6	305.2	306.6	305.2
3	1.209	310.6	310.6	305.2	311.0	308.7	311.3	307.0	309.8	307.4	309.1	307.3	308.2	307.4	309.1	307.3	308.2	307.4
4	1.312	312.4	312.3	308.0	312.8	310.9	313.0	309.9	311.6	310.0	312.2	310.0	312.2	310.0	312.2	310.0	312.2	310.0
5	1.461	314.0	314.1	310.5	314.2	312.4	314.3	312.0	313.9	312.5	315.3	312.9	315.3	312.9	315.3	312.9	315.3	312.9
6	1.496	314.9	315.0	312.3	315.1	313.8	315.2	311.7	313.9	312.4	315.9	312.4	315.9	312.4	315.9	312.4	315.9	312.4
7	1.523	314.7	315.0	313.3	315.1	314.2	315.1	312.9	313.4	312.9	314.0	312.9	314.0	312.9	314.0	312.9	314.0	312.9
8	1.565	314.8	315.3	313.9	315.2	314.0	315.4	312.5	313.6	312.8	313.9	312.5	313.6	312.8	313.9	312.5	313.6	312.8
9	1.626	314.7	315.3	314.1	315.2	314.1	315.0	312.7	313.4	312.8	314.1	312.8	314.1	312.8	314.1	312.8	314.1	312.8
10	1.653	313.1	314.9	314.3	314.9	314.1	315.2	312.2	313.3	312.6	313.8	312.6	313.8	312.6	313.8	312.6	313.8	312.6
11	1.742	313.1	314.9	314.3	314.9	314.1	315.2	312.2	313.3	312.6	313.8	312.6	313.8	312.6	313.8	312.6	313.8	312.6
12	1.794	314.0	314.7	314.5	314.0	313.9	314.7	312.7	312.6	312.3	313.4	312.3	313.4	312.3	313.4	312.3	313.4	312.3
13	1.810	314.5	314.3	314.4	314.2	313.7	314.5	312.6	312.3	311.8	313.0	311.8	313.0	311.8	313.0	311.8	313.0	311.8
14	1.841	314.1	314.0	314.1	313.9	313.4	314.0	311.0	311.6	311.3	316.7	311.2	311.2	311.2	311.2	311.2	311.2	311.1
15	1.815	313.7	313.5	313.9	313.5	313.0	313.5	310.7	311.1	311.6	312.2	311.0	311.6	312.2	311.0	311.6	312.2	311.0
16	1.816	313.1	312.4	313.3	312.7	312.1	312.5	309.8	311.4	310.5	311.8	310.5	311.8	310.5	311.8	310.5	311.8	310.5
17	1.821	312.7	312.2	313.0	312.3	312.1	312.3	309.5	309.9	309.9	311.2	309.7	309.9	311.2	309.7	309.9	311.2	309.7
18	1.816	312.7	312.2	313.0	312.3	312.1	312.3	309.5	309.9	309.9	311.2	309.7	309.9	311.2	309.7	309.9	311.2	309.7
19	1.793	312.3	311.9	312.6	312.2	311.9	312.0	309.1	309.5	309.5	310.8	309.5	310.8	309.5	310.8	309.5	310.8	309.5
20	1.806	312.3	311.7	312.3	312.0	311.7	311.9	308.8	309.3	309.3	310.6	309.3	310.6	309.3	310.6	309.3	310.6	309.3
21	1.826	312.1	311.4	312.1	311.7	311.5	311.5	308.8	309.4	309.4	310.2	310.2	308.4	309.4	310.2	310.2	308.4	309.4
22	1.800	311.7	311.0	311.6	311.4	311.1	311.0	308.3	313.6	308.8	310.0	308.7	308.1	308.7	310.0	308.7	308.1	308.7
23	1.815	310.8	309.9	310.5	310.5	310.1	310.1	307.2	308.1	307.6	308.7	307.8	307.6	308.7	307.8	307.6	308.7	307.8
24	1.821	310.1	308.8	309.4	309.6	309.1	308.9	306.6	306.6	306.6	307.2	307.1	306.2	307.2	307.1	306.2	307.2	307.1
27	1.811	308.8	307.5	308.2	308.4	308.3	307.9	305.9	306.2	306.1	306.1	306.1	306.1	306.1	306.1	306.1	306.1	306.1
37	1.814	307.6	306.6	307.1	307.4	307.2	306.7	305.1	305.6	307.0	306.1	305.9	304.5	306.2	305.9	304.5	306.2	305.9
42	1.811	307.0	306.0	306.5	306.7	306.6	306.4	304.9	306.1	304.9	304.6	303.2	303.8	304.5	303.2	303.8	304.5	303.2
47	1.807	306.6	305.8	305.9	306.2	306.2	305.9	304.2	304.2	304.2	304.5	303.7	304.2	304.5	303.7	304.2	304.5	303.7
52	1.794	306.1	305.1	305.4	305.0	305.7	305.3	303.8	303.8	304.0	303.9	304.2	303.1	303.6	303.9	304.2	303.1	303.6
57	1.800	305.7	304.8	305.1	305.4	305.3	305.1	303.5	303.5	304.0	303.7	304.6	317.7	305.7	303.7	304.6	317.7	305.7
62	1.810	305.3	304.5	304.8	305.1	305.0	305.0	303.1	303.2	303.6	303.3	304.8	302.5	302.7	304.8	302.5	302.7	304.8
67	1.807	305.0	304.2	304.5	304.5	304.6	304.5	302.9	303.8	303.1	303.0	303.5	302.3	302.9	303.5	302.3	302.9	303.5
72	1.807	305.0	304.2	304.5	304.5	304.6	304.5	302.9	303.8	303.1	303.0	303.5	302.3	302.9	303.5	302.3	302.9	303.5
77	1.787	304.5	303.9	304.0	304.2	304.2	304.1	302.5	302.9	302.9	302.9	306.0	304.4	302.5	302.9	306.0	304.4	302.5
82	1.781	304.0	303.7	303.7	303.8	303.8	303.8	302.2	302.2	302.2	302.2	302.2	302.2	302.2	302.2	302.2	302.2	302.2
87	1.793	303.8	303.3	303.3	303.3	303.3	303.3	301.9	302.1	302.1	302.1	302.1	302.1	302.1	302.1	302.1	302.1	302.1
92	1.779	303.8	303.3	303.3	303.3	303.3	303.3	301.9	302.1	302.1	302.1	302.1	302.1	302.1	302.1	302.1	302.1	302.1
97	1.772	303.5	303.1	303.1	303.1	303.2	303.2	301.5	301.8	301.8	301.8	302.0	301.8	301.8	302.0	301.8	301.8	302.0
102	1.765	303.3	303.0	303.1	303.1	303.1	303.1	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3
107	1.791	303.1	302.9	303.0	302.9	303.1	303.0	301.1	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3
112	1.797	303.0	302.7	302.9	302.7	302.9	302.9	300.9	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2
117	1.784	302.9	302.7	302.8	302.6	302.8	302.8	300.9	301.0	301.0	301.0	301.0	301.0	301.0	301.0	301.0	301.0	301.0
122	1.778	302.9	302.6	302.7	302.6	302.7	302.6	300.9	301.0	301.0	301.0	301.0	301.0	301.0	301.0	301.0	301.0	301.0
127	1.786	302.7	302.6	302.7	302.5	302.7	302.5	300.9	301.0	301.0	301.0	301.0	301.0	301.0	301.0	301.0	301.0	301.0
132	1.794	302.7	302.5	302.6	302.4	302.6	302.4	300.8	300.9	300.9	300.9	300.9	300.9	300.9	300.9	300.9	300.9	300.9
137	1.784	302.6	302.4	302.5	302.2	302.5	302.2	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6
142	1.793	302.5	302.3	302.4	302.2	302.4	302.2	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6
147	1.769	302.5	302.3	302.4	302.2	302.4	302.2	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6
152	1.782	302.4	302.3	302.4	302.2	302.4	302.2	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5
157	1.779	302.4	302.3	302.4	302.2	302.4	302.2	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5
162	1.781	302.3	302.3	302.4	302.1	302.3	302.1	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5
167	1.769	302.3	302.3	302.4	302.1	302.3	302.1	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4
172	1.769	302.3	302.3	302.4	302.1	302.3	302.1	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4
177	1.769	302.3	302.3	302.4	302.1	302.3	302.1	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4
182	1.769	302.3	302.3	302.4	302.1	302.3	302.1	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4	300.4

Table 4H — Sealing Run 114, Test Configuration 3: Three 1.52 cm Nozzles

S C METER CHANNEL OBSTRUCTED GAS MIXING RUN 114																		
PRESSURANT FILL- THERMOCOUPLES																		
FOR - TOTAL, TANK																		
TIME	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T
(SEC)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)
-5	1.072	1.072	1.072	300.9	300.8	300.7	300.6	300.5	300.4	300.3	300.2	299.1	299.5	299.9	299.7	299.3	299.0	299.1
-4	1.062	1.062	1.062	300.9	300.8	300.7	300.6	300.5	300.4	300.3	300.2	299.1	299.5	299.9	299.7	299.3	299.0	299.1
-3	1.048	1.048	1.048	300.9	300.8	300.7	300.6	300.5	300.4	300.3	300.2	299.1	299.5	299.9	299.7	299.3	299.0	299.1
-2	1.070	1.070	1.070	300.9	300.8	300.7	300.6	300.5	300.4	300.3	300.2	299.1	299.5	299.9	299.7	299.3	299.0	299.1
-1	1.060	1.060	1.060	300.9	300.8	300.7	300.6	300.5	300.4	300.3	300.2	299.1	299.5	299.9	299.7	299.3	299.0	299.1
0	1.049	1.049	1.049	300.9	300.8	300.6	300.8	300.2	300.9	299.1	299.5	299.9	299.7	299.3	299.0	299.1	299.5	300.0
1	1.070	1.070	1.070	300.9	300.8	300.7	300.6	300.5	300.4	300.3	300.2	299.1	299.5	299.9	299.7	299.3	299.0	299.1
2	1.163	304.5	301.9	304.5	303.9	306.0	304.3	306.0	304.3	306.0	304.3	306.0	304.3	306.0	304.3	306.0	304.3	306.0
3	1.221	311.0	310.8	305.6	311.3	309.9	311.5	307.1	310.8	309.9	311.5	307.1	310.8	309.9	311.5	307.1	310.8	309.9
4	1.366	313.0	312.1	308.4	313.0	311.3	313.7	309.6	312.3	310.3	311.9	310.2	311.1	310.5	310.2	311.1	310.5	310.2
5	1.365	314.4	314.8	311.0	314.9	313.3	314.7	311.6	313.3	312.0	313.4	312.2	312.3	312.0	312.2	312.3	312.0	312.2
6	1.482	315.6	315.7	312.8	315.9	314.5	315.7	312.3	314.0	312.8	314.3	312.7	313.4	312.7	313.4	312.7	313.4	312.9
7	1.512	315.6	316.1	313.8	316.0	314.2	315.7	312.9	314.2	313.3	314.6	313.4	313.7	313.7	313.7	313.7	313.7	313.7
8	1.546	315.7	316.0	314.4	316.0	314.2	315.7	312.9	314.2	313.3	314.6	313.4	313.7	313.7	313.7	313.7	313.7	313.7
9	1.608	315.6	315.7	314.7	315.6	314.0	315.5	313.1	314.2	313.6	314.5	313.3	313.8	313.8	313.8	313.8	313.8	313.8
10	1.680	315.2	315.6	314.9	315.5	314.2	315.3	313.2	314.0	313.6	314.5	313.3	313.8	313.8	313.8	313.8	313.8	313.8
11	1.740	315.4	315.5	315.1	315.6	314.6	315.3	313.6	315.5	314.1	314.7	314.9	313.8	313.8	313.8	313.8	313.8	313.8
12	1.794	315.1	315.4	314.8	315.3	314.2	314.8	312.9	313.4	312.4	313.4	312.4	313.1	313.1	313.1	313.1	313.1	313.1
13	1.799	314.7	315.4	314.7	315.2	313.3	314.6	312.5	313.3	312.1	314.2	312.9	312.9	312.9	312.9	312.9	312.9	312.9
14	1.829	314.7	315.0	314.8	314.9	313.9	314.7	312.3	312.9	312.7	313.3	312.5	312.5	312.5	312.5	312.5	312.5	312.5
15	1.838	314.4	314.4	314.6	314.4	313.7	314.0	311.9	312.7	312.3	313.3	312.0	312.0	312.0	312.0	312.0	312.0	312.0
16	1.823	313.8	313.8	314.2	313.8	313.3	313.5	311.6	313.3	312.3	313.3	312.0	312.0	312.0	312.0	312.0	312.0	312.0
17	1.811	313.5	313.6	313.9	313.8	313.1	313.1	311.3	311.6	311.6	312.3	311.4	311.4	311.4	311.4	311.4	311.4	311.4
18	1.816	313.1	313.2	313.5	313.3	312.9	312.7	311.3	313.5	311.7	312.4	312.9	312.9	312.9	312.9	312.9	312.9	312.9
19	1.823	312.8	312.8	313.2	313.0	312.7	312.4	310.6	310.9	311.0	311.6	310.9	310.2	310.5	310.2	310.5	310.2	310.5
20	1.814	312.5	312.4	312.5	312.8	312.5	312.1	310.2	310.7	310.8	311.1	310.7	310.0	310.2	310.7	310.0	310.2	310.5
21	1.814	312.2	312.2	312.5	312.2	312.4	311.8	310.6	310.3	310.4	310.9	310.5	309.5	309.9	310.5	309.5	309.9	310.5
22	1.819	312.0	311.7	312.1	312.2	311.3	309.8	310.1	310.0	310.6	310.2	309.1	309.5	309.5	309.1	309.5	309.1	309.5
23	1.798	311.0	310.3	311.1	311.0	311.4	310.5	308.9	308.9	308.9	309.4	309.1	308.0	308.7	309.1	308.0	308.7	309.1
24	1.798	310.2	309.3	310.1	310.2	310.2	309.8	307.8	308.1	307.7	308.1	307.7	308.1	307.7	308.1	307.7	308.1	307.7
25	1.817	309.5	308.2	309.0	309.4	309.5	308.8	307.8	307.4	306.9	306.6	306.6	306.6	306.6	306.3	306.6	306.3	306.6
26	1.789	308.7	307.5	308.2	308.6	308.7	308.0	306.6	306.6	306.6	306.6	306.6	306.6	306.6	306.3	306.6	306.3	306.6
27	1.779	308.1	307.0	307.6	308.1	308.1	307.5	305.7	306.1	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9
28	1.764	307.5	306.6	307.0	307.5	307.5	306.9	305.2	305.7	305.4	305.7	305.4	305.7	305.4	305.7	305.4	305.7	305.4
29	1.776	306.9	306.2	306.4	306.6	306.9	306.6	304.8	305.2	305.1	305.2	305.2	305.2	305.2	304.2	304.9	305.2	304.2
30	1.790	306.4	305.9	306.0	306.4	306.4	306.0	304.4	304.8	304.8	304.8	304.8	304.8	304.8	304.5	304.8	304.5	304.8
31	1.785	306.1	305.5	305.8	305.9	305.9	305.8	304.1	304.3	304.7	304.5	304.5	304.2	304.2	304.5	304.2	304.5	304.2
32	1.809	305.9	305.2	305.4	305.7	305.7	305.4	303.6	303.8	304.0	303.5	304.1	303.0	303.6	303.5	303.0	303.6	303.5
33	1.789	305.3	304.6	304.9	305.1	305.1	304.9	303.1	303.3	303.6	303.4	303.6	303.4	303.6	302.7	303.1	303.6	302.7
34	1.778	304.9	304.2	304.6	304.5	304.8	304.5	304.4	307.3	303.3	307.3	303.3	307.3	303.3	304.5	304.5	303.3	303.3
35	1.774	304.5	304.0	304.4	304.3	304.5	304.2	303.5	305.2	304.9	305.2	304.9	305.2	304.9	305.2	304.9	305.2	304.9
36	1.823	304.2	303.8	303.9	304.0	304.3	304.0	302.6	309.7	309.2	311.3	307.6	310.2	302.9	307.6	310.2	302.9	307.6
37	1.788	304.0	303.6	303.8	303.8	303.9	303.5	302.2	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4
38	1.777	303.9	303.5	303.7	303.6	303.8	303.8	302.0	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4
39	1.787	303.8	303.5	303.6	303.6	303.6	303.6	301.6	302.1	302.0	302.1	302.0	302.1	302.0	301.7	301.8	302.1	301.7
40	1.777	303.6	303.3	303.5	303.4	303.5	303.6	301.6	302.1	302.0	302.1	302.0	302.1	302.0	301.9	301.7	302.1	301.9
41	1.766	303.5	303.3	303.5	303.3	303.5	303.6	301.6	302.1	302.0	302.1	302.0	302.1	302.0	301.9	301.7	302.1	301.9
42	1.803	303.5	303.2	303.4	303.2	303.6	303.5	301.6	302.1	302.0	302.1	302.0	302.1	302.0	301.9	301.7	302.1	301.9
43	1.823	303.4	303.1	303.4	303.1	303.5	303.5	301.6	302.1	302.0	302.1	302.0	302.1	302.0	301.9	301.7	302.1	301.9
44	1.789	303.3	303.1	303.3	303.1	303.5	303.4	301.4	303.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4
45	1.785	303.3	303.1	303.3	303.1	303.5	303.4	301.4	303.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4	302.4
46	1.787	303.2	303.0	303.2	303.0	303.4	303.3	301.3	301.5	301.7	302.0	301.5	301.3	301.3	301.5	301.3	301.5	301.3
47	1.778	303.2	303.0	303.2	303.0	303.4	303.3	301.3	301.5	301.7	302.0	301.5	301.3	301.3	301.5	301.3	301.5	301.3
48	1.778	303.2	303.0	303.2	303.0	303.4	303.3	301.3	301.5	301.7	302.0	301.5	301.3	301.3	301.5	301.3	301.5	301.3
49	1.797	303.1	303.1	303.1	303.1	303.1	303.1	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2
50	1.797	303.1	303.1	303.1	303.1	303.1	303.1	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2

Table 4I -- Scaling Run 115, Test Configuration 3: Three 1.52 cm Nozzles

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 113												
PRESSURANT FILL- TH-ACCOUPLES												
FOV - TOTAL, TANK												
TIME P (DEG K)												
1	2	3	4	5	6	7	8	9	10	11	12	13
1.033	301.7	301.5	301.5	301.5	301.5	300.0	300.3	300.2	300.9	300.8	300.2	300.2
1.060	301.7	301.5	301.4	301.3	301.0	301.6	301.5	300.4	301.4	301.4	302.0	301.2
1.063	301.7	301.5	301.4	301.3	301.0	301.6	300.4	300.4	300.4	300.4	300.2	300.2
1.032	301.7	301.5	301.5	301.5	301.0	301.6	300.0	301.7	300.2	300.6	300.5	300.0
1.071	301.7	301.5	301.5	301.5	301.0	301.6	300.0	300.3	300.0	300.6	300.3	300.0
1.035	301.7	301.5	301.4	301.5	301.0	301.7	300.0	300.3	300.0	300.8	300.3	300.4
1.070	303.4	302.8	301.7	302.5	302.4	303.8	300.8	304.1	302.4	303.0	302.0	301.9
1.157	309.7	309.1	304.3	309.5	307.5	310.4	306.3	311.1	306.7	308.3	307.0	306.8
1.235	312.4	312.2	307.1	312.9	310.4	313.1	309.7	312.4	309.9	311.5	311.0	310.9
1.325	314.6	313.2	309.6	314.3	312.6	315.2	311.9	317.4	313.3	313.8	312.2	313.1
1.376	315.4	313.6	312.0	315.6	314.0	315.8	312.9	317.1	313.3	314.7	315.5	315.8
1.449	315.9	316.6	313.6	316.6	315.2	316.2	313.6	314.9	314.1	319.3	314.2	315.7
1.500	316.0	316.6	314.5	316.6	315.2	316.3	313.8	315.5	314.2	314.1	314.2	314.1
1.577	316.4	316.0	315.3	316.7	315.6	316.6	316.0	315.6	315.2	316.3	317.5	314.9
1.570	316.1	316.8	315.6	316.7	315.8	316.4	313.9	314.9	314.7	315.7	314.9	315.4
1.561	315.8	316.6	315.7	316.4	315.2	315.8	316.4	313.9	314.1	315.6	314.2	314.5
1.720	316.4	316.3	315.7	316.0	314.9	315.7	314.0	315.5	314.2	315.2	315.8	315.5
1.786	316.0	316.1	315.6	316.0	314.9	315.9	314.6	318.0	316.6	314.2	314.2	317.5
1.836	315.5	315.9	315.5	315.7	314.7	315.3	314.2	318.6	314.1	315.8	316.5	315.1
1.841	314.8	314.3	315.2	315.2	314.3	314.7	313.4	313.3	313.4	314.5	313.5	313.1
1.822	314.4	314.8	314.9	314.6	314.2	314.4	313.8	312.4	312.3	313.8	312.7	312.4
1.816	313.2	314.4	314.5	314.2	314.0	313.9	312.0	312.5	314.5	315.5	315.0	312.9
1.806	313.9	314.1	314.5	314.1	313.8	313.8	311.7	311.7	311.7	313.0	311.9	311.9
1.809	313.7	313.7	314.0	313.8	313.5	313.4	311.5	311.7	314.0	314.0	313.0	311.6
1.820	313.4	313.3	313.7	313.4	313.7	313.7	311.0	311.4	311.5	313.4	311.3	310.9
1.793	313.2	313.0	313.5	313.3	313.1	312.8	311.7	311.4	311.1	311.5	311.2	310.9
1.817	313.0	312.8	313.2	313.0	312.9	312.4	313.2	312.1	311.2	311.8	316.8	310.5
1.802	312.7	312.4	312.8	312.6	312.7	312.1	310.6	310.9	310.5	310.2	310.7	309.8
1.800	311.7	311.4	311.4	311.9	312.0	310.9	308.9	309.5	309.3	310.2	310.7	309.8
1.835	310.6	309.8	310.2	310.6	310.7	309.7	308.3	308.9	308.9	312.5	308.8	307.6
1.796	309.8	308.9	309.4	309.8	309.8	308.9	307.6	308.3	308.0	307.4	308.2	306.8
1.806	309.0	308.1	308.6	309.1	309.2	308.2	307.1	307.6	307.5	309.8	307.8	306.4
1.788	308.4	307.6	308.1	308.2	308.2	307.8	306.6	307.5	307.2	306.8	307.6	306.6
1.785	308.0	307.3	307.7	308.0	308.3	307.4	313.9	306.4	308.1	307.6	307.5	306.5
1.784	307.5	306.6	307.1	307.3	307.6	307.0	306.2	305.5	305.8	305.3	306.1	304.7
1.806	307.0	306.4	307.1	307.8	307.1	306.6	310.2	309.6	310.9	310.2	311.2	309.8
1.799	306.6	305.9	306.4	306.4	306.4	306.3	309.0	305.9	305.7	307.3	309.5	305.3
1.788	306.4	305.8	306.2	306.1	306.4	306.1	305.0	306.4	305.7	307.8	309.5	305.3
1.787	305.9	305.3	305.7	305.7	305.9	305.7	304.2	307.7	305.0	308.2	307.1	305.8
1.777	305.5	305.1	305.2	305.3	305.5	305.2	303.8	304.0	304.0	303.9	303.4	303.7
1.792	305.2	304.8	305.0	305.0	305.2	305.0	303.8	303.9	303.8	303.7	303.8	303.2
1.777	304.9	304.5	304.8	304.7	305.0	304.8	307.3	303.7	303.5	303.4	303.6	303.0
1.777	304.7	304.5	304.6	304.4	304.7	304.6	303.1	306.4	303.3	303.6	303.0	303.4
1.791	304.6	304.4	304.5	304.4	304.6	304.5	303.0	303.5	303.2	303.7	303.3	303.0
1.790	304.5	304.2	304.4	304.2	304.6	304.4	302.7	303.0	303.0	303.3	303.0	302.6
1.764	304.4	304.1	304.3	304.1	304.5	304.3	302.6	302.8	302.9	303.1	302.7	302.4
1.788	304.3	304.0	304.2	304.0	304.5	304.2	302.4	302.7	302.7	302.9	302.4	302.4
1.801	304.2	304.0	304.1	303.9	304.4	304.2	302.4	302.6	302.6	302.9	302.5	302.4
1.794	304.1	303.9	304.1	303.9	304.2	304.1	303.0	303.2	303.0	303.6	303.2	303.3
1.775	304.0	303.8	304.0	303.8	304.1	304.0	302.3	302.4	302.5	302.7	302.4	302.3
1.789	304.0	303.8	304.0	303.8	304.1	304.0	302.3	302.4	302.5	302.7	302.4	302.3
1.783	303.9	303.8	303.9	303.8	303.9	304.0	302.3	302.4	302.5	302.7	302.4	302.3
1.779	303.9	303.8	303.9	303.8	303.9	304.0	302.2	302.3	302.3	302.6	302.4	302.3
1.804	303.5	303.8	303.8	303.8	303.8	303.9	302.2	302.3	302.3	302.6	302.4	302.1
1.787	303.5	303.8	303.8	303.8	303.9	303.9	302.2	302.3	302.3	302.6	302.4	302.1
1.799	303.8	303.8	303.8	303.8	303.9	303.9	302.2	302.3	302.3	302.6	302.4	302.1

COORDINATES	
I	THETA 2
(R)	(DEG) (R)
1	0.229 00 0.152
2	0.229 00 0.000
3	0.076 00 0.152
4	0.102 00 0.076
5	0.076 00 -0.076
6	0.152 00 0.152
7	0.229 00 0.762
8	0.229 00 0.991
9	0.076 00 0.076
10	0.229 00 -0.076
11	0.152 00 0.762
12	0.229 00 0.514
13	0.229 00 0.638

Table 4J – Scaling Run 116, Test Configuration 3: Three 1.52 cm Nozzles

TIME (SEC)	PRESSURANT FOU - TOTAL, P	FILL- TANK P	THERMOCOUPLES		LOCATION 1													COORDINATES			
			(BAR)	(DEG K)	1	2	3	4	5	6	7	8	9	10	11	12	13	R (M)	THETA 2 (DEG) (N)		
-5	0.000	0.000	1.037	302.2	302.0	302.0	302.1	301.5	302.1	300.2	300.6	300.3	300.8	300.5	300.2	300.3	1	0.229	00	0.152	
-4	0.000	0.000	1.033	302.2	302.0	301.9	302.0	301.5	302.1	300.2	300.6	300.3	300.8	300.5	300.2	300.3	2	0.229	00	0.152	
-3	0.000	0.000	1.049	302.2	302.0	302.0	302.0	301.5	302.1	300.2	300.6	300.3	300.8	300.5	300.2	300.3	3	0.076	00	0.152	
-2	0.000	0.000	1.036	302.2	302.0	302.0	302.0	301.5	302.1	300.2	300.6	300.3	300.8	300.5	300.2	300.3	4	0.102	00	0.076	
-1	0.000	0.000	1.033	302.2	302.0	301.9	302.1	301.5	302.1	300.2	300.6	300.3	300.8	300.5	300.2	300.3	5	0.076	00	-0.076	
0	6.302	293.0	1.030	302.2	302.0	302.0	302.0	301.5	302.0	300.2	300.6	300.3	300.8	300.5	300.2	300.3	6	0.152	00	0.152	
1	6.334	301.3	1.076	303.1	302.4	301.9	302.4	302.8	303.6	303.6	302.7	303.4	303.6	301.8	302.4	301.5	7	0.229	00	0.991	
2	5.940	296.1	1.164	308.5	307.8	303.0	307.7	306.5	309.1	306.0	309.6	306.0	308.4	307.2	307.6	306.8	8	0.229	00	0.991	
3	5.702	291.7	1.219	311.6	311.7	306.4	311.9	309.9	312.3	308.9	312.4	309.3	311.0	309.4	310.4	309.8	9	0.076	00	-0.076	
4	5.365	288.9	1.303	314.8	314.6	310.1	315.1	313.1	315.1	311.4	314.6	311.5	313.2	311.8	315.2	312.7	10	0.229	00	-0.076	
5	5.286	287.3	1.390	316.4	315.9	312.9	315.9	315.1	316.5	312.8	317.0	314.6	316.5	314.6	315.2	314.3	11	0.152	00	0.762	
6	4.765	286.0	1.434	316.5	316.6	314.1	316.9	315.9	317.0	313.5	314.7	314.3	315.9	314.3	314.6	314.5	12	0.229	00	0.914	
7	4.300	284.7	1.516	316.5	317.0	315.3	316.9	315.9	317.0	313.5	314.7	314.3	315.9	314.3	314.6	314.5	13	0.229	00	0.914	
8	4.337	283.5	1.561	316.6	317.1	315.0	317.1	315.6	317.0	313.5	314.7	314.3	315.9	314.3	314.6	314.5	14	0.229	00	0.914	
9	4.199	282.8	1.618	316.6	317.3	316.1	317.1	315.6	317.0	313.5	314.7	314.3	315.9	314.3	314.6	314.5	15	0.229	00	0.914	
10	3.896	281.8	1.673	316.3	317.0	316.1	316.8	315.5	316.1	314.1	315.1	314.5	315.6	314.3	314.9	314.7	16	0.229	00	0.914	
11	3.811	280.9	1.727	316.0	316.6	315.9	316.5	315.3	316.2	313.1	314.7	314.3	315.6	314.3	314.9	314.7	17	0.229	00	0.914	
12	3.513	280.2	1.777	315.9	316.5	316.0	316.6	315.3	316.2	313.1	314.7	314.3	315.6	314.3	314.9	314.7	18	0.229	00	0.914	
13	3.413	289.7	1.809	315.5	316.3	315.8	316.0	314.0	315.5	313.0	314.3	314.3	315.6	314.3	314.9	314.7	19	0.229	00	0.914	
14	3.306	287.5	1.816	315.4	315.7	315.6	315.5	314.5	315.5	313.6	313.7	313.5	315.0	313.5	313.4	313.5	20	0.229	00	0.914	
15	0.000	0.000	1.816	314.9	315.2	315.2	315.0	314.5	314.7	312.8	313.1	313.2	313.8	312.9	313.0	313.2	21	0.229	00	0.914	
16	0.000	0.000	1.812	314.6	314.7	315.0	314.6	314.3	314.4	312.4	312.6	313.0	313.5	312.5	312.5	312.8	22	0.229	00	0.914	
17	0.000	0.000	1.809	314.3	314.3	314.5	314.2	313.9	313.8	312.3	312.4	313.0	313.5	312.5	312.5	312.8	23	0.229	00	0.914	
18	0.000	0.000	1.812	313.8	313.6	314.2	313.0	313.6	313.5	311.0	312.3	312.4	312.9	312.1	312.1	312.4	24	0.229	00	0.914	
19	0.000	0.000	1.805	313.6	313.6	313.9	313.6	313.3	313.3	311.1	311.9	312.1	312.4	311.9	311.7	312.4	25	0.229	00	0.914	
20	0.000	0.000	1.803	313.3	313.4	313.5	313.4	313.5	312.8	311.3	311.6	311.9	312.0	311.3	311.0	311.5	26	0.229	00	0.914	
21	0.000	0.000	1.807	313.2	313.1	313.2	313.2	312.9	312.5	310.8	311.3	311.1	311.5	310.9	310.5	310.9	27	0.229	00	0.914	
22	0.000	0.000	1.799	313.1	312.8	312.9	312.9	312.5	312.0	310.8	311.3	311.1	311.5	310.9	310.5	310.9	28	0.229	00	0.914	
23	0.000	0.000	1.799	312.1	311.6	311.7	312.1	311.9	311.1	309.7	309.8	310.2	310.2	310.2	308.4	309.5	29	0.229	00	0.914	
24	0.000	0.000	1.790	311.0	310.6	310.7	311.1	311.1	310.0	308.7	309.1	309.2	309.1	309.3	308.0	309.9	30	0.229	00	0.914	
25	0.000	0.000	1.789	310.2	309.5	309.5	310.1	310.2	310.5	309.2	308.7	308.6	308.4	308.0	308.5	307.2	308.0	31	0.229	00	0.914
26	0.000	0.000	1.791	309.4	308.6	308.8	309.4	309.8	308.7	307.9	307.9	307.3	307.2	307.4	306.6	307.2	308.0	32	0.229	00	0.914
27	0.000	0.000	1.810	308.7	308.0	308.3	308.6	309.1	308.1	310.9	307.9	307.3	307.1	306.6	307.4	308.4	33	0.229	00	0.914	
28	0.000	0.000	1.780	308.2	307.5	307.8	308.1	308.9	307.8	305.3	306.7	306.6	306.2	306.9	305.3	306.1	34	0.229	00	0.914	
29	0.000	0.000	1.784	307.9	307.0	307.5	307.6	307.7	307.4	305.3	306.2	306.2	306.2	305.8	306.6	305.1	35	0.229	00	0.914	
30	0.000	0.000	1.783	307.5	306.7	307.1	307.1	307.2	307.0	305.5	306.2	306.2	306.2	305.8	306.6	305.1	36	0.229	00	0.914	
31	0.000	0.000	1.783	307.5	306.7	307.1	307.1	307.2	307.0	305.5	306.2	306.2	306.2	305.8	306.6	305.1	37	0.229	00	0.914	
32	0.000	0.000	1.794	307.0	306.4	306.8	306.8	306.6	306.6	304.0	308.1	305.3	305.3	305.3	304.7	305.3	38	0.229	00	0.914	
33	0.000	0.000	1.794	306.7	306.2	306.6	306.6	306.6	306.6	304.0	308.1	305.3	305.3	305.3	304.7	305.3	39	0.229	00	0.914	
34	0.000	0.000	1.782	306.7	306.2	306.6	306.6	306.6	306.6	304.0	308.1	305.3	305.3	305.3	304.7	305.3	40	0.229	00	0.914	
35	0.000	0.000	1.779	306.4	305.8	306.1	306.1	305.9	305.2	304.5	306.8	304.6	304.5	304.7	304.0	304.3	41	0.229	00	0.914	
36	0.000	0.000	1.784	306.2	305.3	305.9	305.9	305.5	305.6	303.5	304.0	304.4	304.2	304.4	303.8	304.0	42	0.229	00	0.914	
37	0.000	0.000	1.777	305.9	305.3	305.9	305.9	305.5	305.6	303.5	304.0	304.4	304.2	304.4	303.8	304.0	43	0.229	00	0.914	
38	0.000	0.000	1.785	305.6	305.1	304.7	305.2	305.2	305.2	303.3	303.9	303.6	303.8	303.8	303.4	303.5	44	0.229	00	0.914	
39	0.000	0.000	1.785	305.6	305.1	304.7	305.2	305.2	305.2	303.3	303.9	303.6	303.8	303.8	303.4	303.5	45	0.229	00	0.914	
40	0.000	0.000	1.783	305.1	304.7	304.7	305.2	305.2	305.2	303.3	303.9	303.6	303.8	303.8	303.4	303.5	46	0.229	00	0.914	
41	0.000	0.000	1.779	305.0	304.6	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	47	0.229	00	0.914	
42	0.000	0.000	1.779	304.8	304.5	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	48	0.229	00	0.914	
43	0.000	0.000	1.779	304.8	304.5	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	49	0.229	00	0.914	
44	0.000	0.000	1.779	304.8	304.5	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	50	0.229	00	0.914	
45	0.000	0.000	1.779	304.8	304.5	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	51	0.229	00	0.914	
46	0.000	0.000	1.779	304.8	304.5	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	52	0.229	00	0.914	
47	0.000	0.000	1.779	304.8	304.5	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	53	0.229	00	0.914	
48	0.000	0.000	1.779	304.8	304.5	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	54	0.229	00	0.914	
49	0.000	0.000	1.779	304.8	304.5	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	55	0.229	00	0.914	
50	0.000	0.000	1.779	304.8	304.5	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	56	0.229	00	0.914	
51	0.000	0.000	1.779	304.8	304.5	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	57	0.229	00	0.914	
52	0.000	0.000	1.779	304.8	304.5	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	58	0.229	00	0.914	
53	0.000	0.000	1.779	304.8	304.5	304.6	305.1	305.1	305.1	303.3	303.9	303.6	303.8	303.8	303.4	303.5	59	0.229	00	0.914	
54	0.000	0.000	1.779	304.8	304.5	304.6															

Table 5A — Inferred Pressurant Distribution, Scaling Run 103: Test Configuration 3

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME TEMPI DEG C		BETA BETA/TSTAR PRESSURANT FRACTION										
(SEC) MEAN AIR PRESSURANT		MEAN I = 1										
		3	4	5	6	7	8	9	10	11	12	13
CONNECTION VALVE OPENING		3	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.0 25.3 25.3 14.5		166.3	3.1666	0.019	301	331	1.143	760	0.072	711	684	-1.458
1.0 26.7 26.7 25.4												
VALVE FULLY OPEN		6.5	2741	0.060	314	337	0.11	363	0.265	342	430	0.94
2.0 31.1 31.4 27.7		12.4	7637	0.116	165	602	0.000	165	0.48	185	0.50	156
3.0 36.8 36.0 25.7		16.3	1.0185	0.170	137	0.07	1.219	0.14	114	0.14	145	0.17
4.0 38.3 38.5 25.5		13.7	0.0185	0.170	137	0.07	1.219	0.14	114	0.14	145	0.17
5.0 38.5 41.8 26.2		8.3	4093	0.209	261	146	184	184	158	254	190	229
6.0 39.3 43.5 26.7		12.3	6087	0.247	278	200	210	206	284	206	289	236
7.0 38.5 44.1 26.0		13.1	3409	0.267	288	195	282	224	305	253	305	271
8.0 39.6 44.9 27.1		13.2	5386	0.296	308	280	263	308	291	330	308	308
9.0 39.5 45.5 27.5		13.9	7082	0.331	331	281	342	303	364	325	353	348
10.0 39.5 45.7 27.6		13.7	2416	0.343	346	285	352	313	385	352	363	335
CONNECTION VALVE CLOSURE		14.4	4929	0.365	373	317	370	339	389	362	384	373
11.0 39.3 45.8 27.8		18.9	3623	0.381	383	349	372	355	411	366	394	405
VALVE FULLY CLOSED		22.6	4348	0.395	396	355	390	366	408	402	408	432
13.0 38.8 45.5 28.7		19.6	3777	0.395	402	368	415	388	402	415	402	422
14.0 38.9 42.9 27.9		14.6	2805	0.395	388	400	382	388	406	406	406	412
15.0 38.3 44.8 28.5		0.0	0.0000	0.395	392	387	392	385	367	422	410	428
16.0 38.3 44.8 28.5		20.5	3939	0.395	382	368	403	389	375	410	410	417
17.0 36.4 42.2 27.6		17.2	3316	0.395	384	359	392	377	362	407	430	422
18.0 38.0 40.2 27.1		40.9	7838	0.395	386	380	398	386	368	404	416	410
19.0 38.7 45.2 28.6		40.9	7838	0.395	391	368	406	391	353	414	429	414
20.0 38.0 40.2 27.1		19.9	3823	0.395	381	364	389	381	355	406	440	423
21.0 38.7 38.3 26.5		12.7	8217	0.395	382	375	388	382	362	402	435	415
22.0 36.9 42.9 27.9		59.3	1.1403	0.395	375	356	384	384	347	403	450	431
23.0 32.6 36.8 26.2		34.6	6638	0.395	373	373	388	388	350	404	435	419
24.0 35.9 40.0 27.0		0.0	0.0000	0.395	375	375	381	381	352	395	438	402
25.0 35.9 41.4 27.5		6.5	1254	0.395	377	370	370	392	347	385	444	404
26.0 35.9 41.4 27.5		14.1	2712	0.395	367	367	367	383	351	391	447	407
27.0 35.4 40.7 27.2		28.7	5526	0.395	376	383	376	390	355	390	431	403
28.0 36.3 39.3 26.8		44.3	8511	0.395	368	377	368	385	341	385	447	412
29.0 36.6 42.4 27.0		48.1	9241	0.395	374	368	374	381	361	388	435	408
30.0 33.3 37.8 26.4		62.3	1.1988	0.395	359	359	379	388	350	388	446	417
31.0 36.9 42.8 27.9		48.6	1.9348	0.395	362	369	376	398	355	376	435	413
32.0 32.4 36.6 26.2		39.8	7647	0.395	362	362	371	398	344	380	427	419
33.0 35.7 41.1 27.4		11.2	2159	0.395	359	357	376	402	350	384	427	419
34.0 33.0 37.3 26.3		26.6	5111	0.395	369	377	369	399	355	384	428	414
35.0 33.7 38.3 26.6		49.6	9536	0.395	343	375	365	414	335	384	424	424
36.0 33.6 40.9 27.4		17.2	3306	0.395	339	382	361	426	350	382	426	426
37.0 32.3 36.3 26.1		28.6	5501	0.395	342	374	368	428	352	393	418	418
38.0 31.4 35.1 25.8		43.0	8272	0.395	362	377	379	421	362	396	404	407
39.0 30.2 33.3 25.4		43.0	8272	0.395	362	377	379	421	362	396	404	407
40.0 31.4 35.1 25.8		23.9	4603	0.395	369	406	384	421	354	391	406	398
41.0 33.8 38.5 26.7		14.5	2786	0.395	373	400	387	414	359	387	407	393
42.0 35.6 40.9 27.4		38.2	7332	0.395	379	396	388	413	354	388	405	388
43.0 38.8 38.5 26.7		23.0	4416	0.395	368	407	378	426	349	397	407	378
44.0 32.4 36.5 26.2		24.1	4628	0.395	364	377	386	419	331	397	419	386
45.0 32.4 36.5 26.2		20.4	3929	0.395	361	398	385	410	336	398	410	398
46.0 30.5 33.6 25.9		4.4	0.839	0.395	360	396	372	420	348	396	420	408
47.0 30.5 33.6 25.9		64.5	1.2404	0.395	374	391	383	416	358	399	408	399
48.0 34.0 38.8 26.7		2.6	0.582	0.395	376	385	385	410	359	401	393	401
49.0 33.8 38.5 26.7												
50.0 33.8 38.5 26.7												

(Table continues)

Table 5A — Inferred Pressurant Distribution, Scaling Run 103: Test Configuration 3 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI																		
TIME TEMP DEC C		BETA BETA/TSTAR PRESSURANT FRACTION																
(SEC)	MEAN AIR PRESSURANT	MEAN I = 1 2 3 4 5 6 7 8 9 10 11 12 13																
VALVE FULLY CLOSED																		
31.0	33.8	38.5	26.7	0.0	0.0000	395	383	383	409	358	400	409	409	400	35	363	423	434
32.0	35.7	41.1	27.4	-26.1	-5017	395	384	377	392	406	362	399	399	406	392	36	426	435
33.0	33.1	37.5	26.4	36.9	7101	395	382	382	391	400	356	409	400	418	391	352	427	436
34.0	31.4	35.1	25.8	32.3	6202	395	373	384	395	406	352	416	406	384	35	384	436	438
35.0	31.2	34.8	25.7	3.7	0718	395	386	397	397	408	353	408	397	408	375	386	441	441
36.0	30.7	34.1	25.6	11.9	2286	395	371	395	395	407	348	407	395	418	383	385	442	442
37.0	29.5	32.3	25.2	32.7	6293	395	371	413	399	413	343	413	385	427	371	385	456	427
38.0	33.3	37.8	26.4	-81.0	-15376	395	385	402	394	411	359	402	394	420	376	385	429	411
39.0	33.3	37.8	26.6	-15.8	-3042	395	381	413	397	405	363	405	389	413	381	373	421	421
40.0	30.0	33.0	25.4	81.7	15599	395	375	427	401	414	335	401	388	440	375	36	440	401
41.0	34.2	39.0	26.8	-79.4	-15563	395	378	408	391	408	358	399	391	424	383	37	424	416
42.0	32.3	36.3	26.1	31.2	6003	395	378	407	387	417	358	407	387	417	378	36	427	417
43.0	33.1	37.5	26.4	-15.2	-2920	395	382	408	382	418	353	400	400	418	373	37	427	418
44.0	30.4	33.6	25.5	55.8	10720	395	381	405	368	418	331	405	405	430	368	33	443	418
45.0	35.0	40.2	27.1	-82.0	-15767	395	387	402	387	410	348	402	402	410	379	37	425	417
46.0	30.2	32.3	25.5	86.1	16544	395	387	400	387	413	322	413	400	439	361	36	452	413
47.0	30.2	32.3	25.9	-75.1	-14443	395	385	401	385	410	343	401	401	418	385	37	426	418
48.0	30.9	34.3	25.7	59.1	11361	395	380	404	392	416	334	404	404	427	369	35	439	416
49.0	31.1	34.5	25.8	-4.0	-0762	395	386	398	386	409	329	398	398	432	375	37	438	421
50.0	31.1	34.5	25.8	0.0	0.0000	395	391	403	380	414	323	403	391	437	368	36	437	426
51.0	30.9	33.9	27.2	-64.6	-12412	395	394	402	386	410	347	394	394	418	378	37	436	418
52.0	30.4	33.5	25.6	79.9	15262	395	393	406	380	418	329	393	393	431	367	36	433	431
53.0	35.7	41.0	27.6	-90.0	-07295	395	397	397	390	405	352	390	397	412	382	38	420	420
54.0	31.2	34.7	25.9	71.5	13719	395	395	406	384	406	338	395	395	429	372	37	429	418
55.0	35.6	40.7	27.6	-69.4	-13352	395	392	400	384	400	354	392	400	415	384	38	422	422
56.0	29.3	31.8	25.6	113.3	21786	395	402	402	370	419	305	386	386	435	370	38	402	419
57.0	32.8	36.6	26.9	-70.1	-15010	395	394	394	384	404	343	394	404	415	374	38	425	425
58.0	32.3	33.9	26.7	9.3	1794	395	402	402	381	413	338	392	402	413	370	38	424	424
59.0	30.4	33.3	28.9	41.1	7900	395	403	403	376	417	322	390	403	417	376	37	403	417
60.0	33.3	37.4	27.1	-58.5	-11240	395	396	396	386	415	337	386	403	405	376	38	425	425
61.0	32.6	36.4	26.8	11.7	2237	395	391	401	391	422	329	401	401	412	370	38	422	422
62.0	34.2	38.5	27.5	-23.0	-4807	395	387	396	387	414	341	396	405	396	378	38	423	432
63.0	28.8	30.9	25.6	112.6	21641	395	373	411	392	430	297	392	411	411	373	39	425	425
64.0	32.6	36.2	27.2	-91.4	-17565	395	390	401	379	412	346	390	412	401	379	37	423	434
65.0	30.2	32.9	26.1	51.6	9912	395	396	411	381	411	322	396	396	411	381	38	426	426
66.0	31.1	36.9	27.4	-60.1	-11545	395	391	401	391	401	338	391	401	401	391	38	401	422
67.0	31.1	34.1	26.5	39.7	7621	395	385	411	398	411	319	385	411	401	385	37	424	424
68.0	31.8	35.0	26.8	-14.7	-2032	395	391	415	379	403	330	391	415	391	391	37	415	440
69.0	30.5	33.3	26.3	26.9	5176	395	384	412	384	412	314	399	412	398	384	37	412	426
70.0	33.7	37.6	27.6	-59.5	-11447	395	393	403	393	403	343	393	403	393	383	38	413	434
71.0	29.5	31.9	25.9	85.9	16524	395	387	404	387	421	330	421	404	387	370	37	421	438
72.0	35.2	39.6	28.4	-105.1	-20215	395	394	394	384	403	330	403	412	394	385	37	421	421
73.0	30.0	32.5	26.2	92.2	17726	395	391	391	376	423	313	407	407	407	376	37	423	438
74.0	30.0	32.5	26.2	-90.2	-17340	395	395	395	385	404	349	395	404	395	386	37	423	423
75.0	35.0	39.3	28.5	-50.2	-17340	395	395	395	385	404	349	395	404	395	386	37	395	423
76.0	32.3	34.6	28.4	148.9	28623	395	434	370	370	434	242	402	402	402	370	37	434	498
77.0	30.0	32.0	27.1	-116.9	-22473	395	406	390	390	406	313	390	421	406	375	37	406	427
78.0	30.0	32.0	27.1	50.0	9612	395	406	406	385	427	283	385	406	406	385	36	406	427
79.0	32.8	33.5	28.7	-58.9	-11328	395	398	398	384	413	310	384	413	398	384	38	398	442
80.0	32.1	34.6	28.3	12.6	2421	395	392	392	408	408	298	377	408	408	392	37	408	440
100.0	29.5	31.3	26.8	61.3	11788	395	390	390	390	435	255	390	412	390	39	412	457	412

Table 5B — Inferred Pressurant Distribution, Scaling Run 104: Test Configuration 3

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME TEMP(DEC C)		BETA BETA/TSTAR PRESSURANT FRACTION										
(SEC) MEAN AIR PRESSURANT		MEAN I = 1										
		1	2	3	4	5	6	7	8	9	10	11
		12	13	14	15	16	17	18	19	20	21	22
COMMENCE VALVE OPENING		0.0	25.9	25.9	10.4	1.0	0.0000	0.000	0.000	0.000	0.000	0.000
VALVE FULLY OPEN		1.0	27.9	27.9	27.0	-220.3	-2.1051	0.000	0.000	0.000	0.000	0.000
		2.0	33.6	34.1	28.7	16.1	1.1407	0.000	0.000	0.000	0.000	0.000
		3.0	36.9	38.6	26.4	11.0	0.6991	0.000	0.000	0.000	0.000	0.000
		4.0	38.3	40.7	26.2	10.7	0.3887	0.000	0.000	0.000	0.000	0.000
		5.0	39.2	42.6	26.4	13.3	0.7396	0.000	0.000	0.000	0.000	0.000
		6.0	39.8	43.9	26.8	12.5	0.4966	0.000	0.000	0.000	0.000	0.000
		7.0	40.1	45.0	27.2	13.2	0.6467	0.000	0.000	0.000	0.000	0.000
		8.0	40.1	45.6	27.3	13.8	0.5528	0.000	0.000	0.000	0.000	0.000
		9.0	39.9	45.9	27.7	14.4	0.4272	0.000	0.000	0.000	0.000	0.000
		10.0	39.7	46.2	28.1	14.3	0.6710	0.000	0.000	0.000	0.000	0.000
COMMENCE VALVE CLOSURE		11.0	39.7	46.2	28.0	70.2	0.0069	0.000	0.000	0.000	0.000	0.000
VALVE FULLY CLOSED		12.0	39.4	46.1	28.8	72.5	0.6959	0.000	0.000	0.000	0.000	0.000
		13.0	39.1	45.7	28.5	-2.7	-0.0256	0.000	0.000	0.000	0.000	0.000
		14.0	42.7	50.5	30.0	-61.3	-0.5850	0.000	0.000	0.000	0.000	0.000
		15.0	39.5	46.2	28.6	54.6	0.5239	0.000	0.000	0.000	0.000	0.000
		16.0	42.8	50.7	30.1	-57.3	-0.5498	0.000	0.000	0.000	0.000	0.000
		17.0	41.6	49.0	29.5	19.7	0.1894	0.000	0.000	0.000	0.000	0.000
		18.0	36.5	42.0	27.3	101.5	0.7446	0.000	0.000	0.000	0.000	0.000
		19.0	40.5	47.6	29.1	-83.9	-0.8034	0.000	0.000	0.000	0.000	0.000
		20.0	42.8	50.7	30.1	-37.9	-0.3616	0.000	0.000	0.000	0.000	0.000
		21.0	37.0	42.8	27.7	108.2	1.0392	0.000	0.000	0.000	0.000	0.000
		22.0	40.4	47.3	29.1	-68.3	-0.6561	0.000	0.000	0.000	0.000	0.000
		23.0	39.0	45.4	28.5	26.7	0.2568	0.000	0.000	0.000	0.000	0.000
		24.0	38.8	45.2	28.4	3.5	0.0341	0.000	0.000	0.000	0.000	0.000
		25.0	41.4	48.8	29.5	-48.6	-0.4665	0.000	0.000	0.000	0.000	0.000
		26.0	39.5	46.1	28.7	34.0	0.3338	0.000	0.000	0.000	0.000	0.000
		27.0	39.8	46.6	28.9	-6.7	-0.0642	0.000	0.000	0.000	0.000	0.000
		28.0	36.0	41.3	27.3	84.4	0.8101	0.000	0.000	0.000	0.000	0.000
		29.0	38.6	44.9	28.3	-60.7	-0.5824	0.000	0.000	0.000	0.000	0.000
		30.0	40.0	46.8	28.9	-27.4	-0.2635	0.000	0.000	0.000	0.000	0.000
		31.0	37.7	43.7	28.0	46.1	0.4428	0.000	0.000	0.000	0.000	0.000
		32.0	39.8	46.6	28.9	-42.9	-0.4116	0.000	0.000	0.000	0.000	0.000
		33.0	40.9	48.0	29.3	-19.1	-0.1832	0.000	0.000	0.000	0.000	0.000
		34.0	37.7	43.7	28.0	61.8	0.5929	0.000	0.000	0.000	0.000	0.000
		35.0	35.1	40.1	27.0	65.8	0.6314	0.000	0.000	0.000	0.000	0.000
		36.0	40.5	47.6	29.1	-119.8	-1.1500	0.000	0.000	0.000	0.000	0.000
		37.0	35.8	41.0	27.2	101.3	0.7727	0.000	0.000	0.000	0.000	0.000
		38.0	34.0	38.6	26.6	31.2	0.4912	0.000	0.000	0.000	0.000	0.000
		39.0	37.7	43.7	28.0	-97.0	-0.9310	0.000	0.000	0.000	0.000	0.000
		40.0	41.1	48.3	29.4	-64.8	-0.6218	0.000	0.000	0.000	0.000	0.000
		41.0	37.4	43.2	27.8	72.5	0.6964	0.000	0.000	0.000	0.000	0.000
		42.0	37.9	44.0	28.1	-11.8	-0.1130	0.000	0.000	0.000	0.000	0.000
		43.0	38.8	45.2	28.4	-18.5	-0.1776	0.000	0.000	0.000	0.000	0.000
		44.0	40.5	47.6	29.2	-33.4	-0.3210	0.000	0.000	0.000	0.000	0.000
		45.0	37.9	44.0	28.1	51.8	0.4974	0.000	0.000	0.000	0.000	0.000
		46.0	36.3	41.8	27.4	37.0	0.3550	0.000	0.000	0.000	0.000	0.000
		47.0	36.7	42.3	27.6	-8.7	-0.0835	0.000	0.000	0.000	0.000	0.000
		48.0	38.1	44.2	28.1	-32.1	-0.3082	0.000	0.000	0.000	0.000	0.000
		49.0	38.0	45.2	28.4	-14.7	-0.1411	0.000	0.000	0.000	0.000	0.000
		50.0	41.4	48.7	29.6	-48.6	-0.4665	0.000	0.000	0.000	0.000	0.000

(Table continues)

Table 5B — Inferred Pressurant Distribution, Scaling Run 104: Test Configuration 3 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME TEMP. DEG C)		BETA BETA/ISTAR PRESSURANT FRACTION										
(SEC)		MEAN AIR PRESSURANT										
		NEWM 1 = 1										
VALVE FULLY CLOSED												
51.0	38.6	44.9	28.4	52.2	5007	302	368	380	392	398	390	374
52.0	34.5	39.3	26.8	99.2	9521	302	368	376	384	400	384	392
53.0	33.7	38.1	26.5	28.1	2695	302	368	376	384	400	384	392
54.0	33.7	38.1	26.5	0.0	0.0000	302	368	376	384	400	384	392
55.0	37.5	43.5	27.9	-104.4	-1.0020	302	366	379	393	398	385	378
56.0	39.0	43.4	28.5	-29.8	-2862	302	367	373	379	396	390	379
57.0	37.9	44.0	28.1	22.0	2116	302	360	373	379	394	382	379
58.0	37.7	43.7	28.0	3.9	0371	302	362	375	381	394	388	381
59.0	35.4	40.6	27.1	55.1	5382	302	370	378	393	393	385	385
60.0	33.7	38.1	26.5	53.3	5114	302	362	380	388	393	385	385
61.0	33.5	37.8	26.4	6.0	0576	302	374	383	392	392	382	383
62.0	38.4	44.7	28.2	-120.2	-1.2304	302	370	376	382	394	388	376
63.0	39.7	46.4	28.8	-24.5	-2352	302	373	378	390	394	388	385
64.0	36.5	42.0	27.5	68.0	6532	302	367	374	388	395	384	378
65.0	32.8	36.0	26.2	110.7	1.0629	302	365	374	393	395	381	367
66.0	38.1	44.2	28.1	-145.0	-1.3917	302	371	377	384	390	384	371
67.0	34.5	39.3	26.8	88.4	8450	302	373	381	388	396	388	373
68.0	35.8	41.1	27.2	-34.8	-3340	302	375	382	397	390	380	375
69.0	37.4	43.3	27.8	-38.8	-3726	302	373	386	392	386	373	373
70.0	40.7	47.0	29.2	-65.5	-6385	302	376	381	392	386	370	376
71.0	37.2	43.0	27.6	70.5	6767	302	378	384	397	391	384	378
72.0	32.6	36.5	26.2	123.0	1.2772	302	380	380	390	390	380	370
73.0	36.5	42.0	27.5	-117.2	-1.1249	302	376	376	397	397	383	370
74.0	36.5	42.0	27.5	0.0	0.0000	302	373	387	393	393	380	366
75.0	38.0	43.1	28.5	-51.0	-4895	302	371	383	389	395	377	371
76.0	34.9	39.8	27.0	92.6	8886	302	373	381	388	396	381	373
77.0	37.2	43.0	27.8	-59.0	-5663	302	371	384	398	398	378	371
78.0	35.8	41.0	27.3	34.8	3339	302	366	388	395	395	388	373
79.0	37.4	43.2	27.9	-38.8	-3726	302	372	385	391	385	372	372
80.0	37.2	43.0	27.8	4.0	0380	302	377	383	397	397	383	370
81.0	37.7	43.7	28.1	-11.9	-1147	302	375	388	394	394	381	375
82.0	37.5	43.4	28.0	3.9	0377	302	373	386	392	392	379	379
83.0	37.4	43.2	27.9	4.0	0382	302	378	385	391	391	385	378
84.0	36.7	42.2	27.6	16.6	1590	302	381	388	394	394	381	374
85.0	32.4	36.3	26.2	127.8	1.2272	302	380	390	390	390	380	370
86.0	37.4	43.2	27.9	-143.3	-1.3754	302	378	385	391	391	378	378
87.0	33.5	37.8	26.5	106.3	1.0206	302	384	384	393	384	376	376
88.0	38.2	44.4	28.3	-124.7	-1.1970	302	379	385	391	391	379	379
89.0	36.3	41.7	27.5	44.5	4271	302	383	376	383	383	376	376
90.0	37.5	43.4	28.0	-29.2	-2805	302	382	382	390	388	382	375
91.0	36.0	42.5	27.7	16.3	1565	302	377	383	390	390	377	377
92.0	35.1	40.0	27.0	45.0	4394	302	375	380	382	382	375	375
93.0	35.6	40.8	27.2	-14.6	-1405	302	370	378	385	393	378	378
94.0	35.6	40.8	27.2	0.0	0.0000	302	373	381	388	395	381	373
95.0	35.6	40.8	27.2	0.0	0.0000	302	372	386	394	386	379	372
96.0	37.7	43.7	28.1	-51.3	-4927	302	377	383	396	396	377	377
97.0	38.2	44.4	28.3	-11.4	-1097	302	381	387	394	394	369	381
98.0	36.7	42.2	27.7	35.8	3441	302	379	385	392	392	372	372
99.0	32.2	36.0	26.2	134.5	1.2915	302	375	385	395	395	375	375
100.0	37.9	43.9	28.2	-160.6	-1.5417	302	375	382	395	388	382	382

Table 5C — Inferred Pressurant Distribution, Scaling Run 105: Test Configuration 3

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI													
TIME TEMPERATURE		BETA BETA/TSTAR PRESSURANT FRACTION											
(SEC)	MEAN AIR PRESSURANT	MEAN I - 1	2	3	4	5	6	7	8	9	10	11	12
COMMENCE VALVE OPENING													
0.0	21.7	21.7	29.4	1.4	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.0	26.0	26.2	22.0	24.1	1.1388	0.046	-0.061	-0.387	-0.224	-0.310	0.000	0.000	0.000
VALVE FULLY OPEN													
2.0	30.3	31.3	22.1	15.4	1.0610	110	160	-0.003	0.018	0.018	0.000	0.000	0.000
3.0	33.1	35.0	23.0	10.1	0.5432	156	201	0.60	0.44	0.77	0.317	0.110	0.110
4.0	34.9	37.9	23.9	13.4	1.0097	217	236	1.65	0.50	1.63	0.43	0.215	0.215
5.0	34.8	38.3	24.2	16.7	0.6333	247	226	1.62	0.71	1.62	0.304	0.198	0.198
6.0	35.9	39.9	24.8	8.7	0.2937	269	284	2.18	0.376	2.18	0.363	0.271	0.271
7.0	34.7	39.1	24.7	19.1	1.0432	306	249	1.73	1.310	1.86	0.290	0.270	0.270
8.0	36.0	40.9	25.4	-2.7	-0.3729	316	349	2.98	0.304	3.81	0.356	0.324	0.324
9.0	35.8	41.2	25.5	14.8	0.7161	348	365	3.14	0.466	3.26	0.416	0.384	0.384
COMMENCE VALVE CLOSURE													
10.0	35.9	41.8	25.8	12.8	0.3748	367	398	3.60	0.261	3.67	0.429	0.423	0.423
11.0	35.8	41.8	26.0	4.4	0.2148	376	395	3.70	0.319	3.64	0.440	0.421	0.421
VALVE FULLY CLOSED													
12.0	35.5	41.4	26.8	15.0	0.7272	402	404	3.97	0.370	3.90	0.480	0.445	0.445
13.0	33.0	38.0	25.5	10.5	0.5162	402	403	3.95	0.339	3.87	0.443	0.475	0.475
14.0	29.7	33.7	23.9	17.3	0.8408	402	430	3.99	0.318	3.89	0.440	0.502	0.502
15.0	32.1	36.9	25.1	-13.4	-0.6482	402	404	3.88	0.345	4.13	0.413	0.498	0.498
16.0	30.4	34.6	24.2	9.2	0.4455	402	421	3.83	0.344	4.11	0.411	0.518	0.518
17.0	34.3	39.8	26.2	-19.0	-0.9201	402	413	3.83	0.385	4.13	0.405	0.493	0.493
18.0	30.2	34.3	24.1	20.0	0.9679	402	410	3.81	0.361	4.10	0.420	0.518	0.518
19.0	33.5	38.7	25.8	-16.5	-0.7984	402	407	3.99	0.345	3.92	0.415	0.485	0.485
20.0	28.2	31.5	23.3	29.9	1.4487	402	393	4.06	0.331	4.06	0.406	0.539	0.539
21.0	30.9	35.2	24.5	-17.9	-0.8657	402	385	4.04	0.329	4.04	0.395	0.478	0.478
22.0	33.1	38.2	25.7	-11.1	-0.5722	402	404	3.96	0.344	4.04	0.396	0.476	0.476
23.0	31.4	35.9	24.8	8.3	0.4033	402	398	3.89	0.362	3.98	0.407	0.488	0.488
24.0	27.7	30.8	23.1	24.7	1.1938	402	386	3.73	0.321	3.99	0.399	0.528	0.528
25.0	30.8	35.0	24.5	-21.1	-1.0228	402	396	3.96	0.368	4.06	0.386	0.491	0.491
26.0	30.4	34.5	24.3	2.0	0.9561	402	391	4.00	0.361	4.20	0.400	0.495	0.495
27.0	29.0	32.7	23.7	8.8	0.4256	402	394	4.05	0.339	4.16	0.394	0.503	0.503
28.0	27.5	30.6	23.0	12.1	0.5845	402	385	4.11	0.332	4.11	0.385	0.516	0.516
29.0	32.8	37.7	25.5	-12.3	-1.5558	402	390	4.06	0.337	4.06	0.390	0.472	0.472
30.0	27.9	31.0	23.1	29.6	1.4358	402	387	4.25	0.311	4.25	0.387	0.501	0.501
31.0	32.3	37.0	25.3	-27.4	-1.3267	402	391	4.25	0.349	4.08	0.391	0.460	0.460
32.0	27.7	30.8	23.1	28.7	1.3919	402	370	4.35	0.344	4.09	0.383	0.500	0.500
33.0	26.8	29.6	22.7	7.9	0.3847	402	378	4.37	0.335	4.37	0.378	0.510	0.510
34.0	28.7	32.2	23.6	-16.0	-0.7748	402	389	4.36	0.343	4.36	0.389	0.566	0.566
35.0	29.7	33.5	24.1	-7.0	-0.3409	402	395	4.26	0.332	4.37	0.384	0.500	0.500
36.0	26.5	29.1	22.6	26.1	1.2668	402	389	4.66	0.342	4.51	0.385	0.543	0.543
37.0	28.9	32.4	23.7	-20.6	-1.0082	402	396	4.42	0.338	4.53	0.384	0.499	0.499
38.0	30.2	34.2	24.3	9.0	-0.4308	402	396	4.46	0.355	4.56	0.385	0.487	0.487
39.0	26.3	28.8	22.6	30.8	1.4337	402	408	4.72	0.311	4.89	0.352	0.488	0.488
40.0	31.4	35.8	25.0	-36.8	-1.7839	402	399	4.45	0.343	4.45	0.390	0.482	0.482
41.0	24.6	26.1	22.4	55.8	2.7031	402	427	3.98	0.324	4.48	0.400	0.524	0.524
42.0	29.2	32.2	24.8	-45.7	-2.2135	402	411	4.65	0.317	4.79	0.384	0.519	0.519
43.0	24.8	26.2	22.6	43.2	2.0572	402	429	5.12	0.237	5.40	0.347	0.500	0.500
44.0	29.4	32.3	25.1	-44.2	-2.1432	402	426	4.54	0.329	4.68	0.385	0.537	0.537
45.0	26.3	28.3	23.4	25.8	1.2882	402	435	4.95	0.313	4.95	0.394	0.536	0.536
46.0	31.1	34.5	26.1	-35.2	-1.7076	402	419	4.55	0.326	4.55	0.395	0.527	0.527
47.0	26.5	28.5	23.5	33.6	1.6267	402	438	4.98	0.279	5.18	0.399	0.508	0.508
48.0	28.0	30.5	24.3	-14.3	-0.6324	402	439	4.88	0.309	5.04	0.423	0.570	0.570
49.0	28.4	30.9	24.5	-2.7	-1.3116	402	439	5.02	0.298	5.02	0.408	0.549	0.549
50.0	27.9	30.3	24.3	4.1	0.2060	402	436	5.04	0.288	5.04	0.404	0.570	0.570

(Table continues)

Table 5C — Inferred Pressurant Distribution, Sealing Run 105: Test Configuration 3 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME (SEC)	TEMP (DEG C)	BETA BETA/TSTAR PRESSURANT FRACTION										
		NEHN 1 = 1										
VALVE FULLY CLOSED												
31.0	28.9	31.6	24.9	-7.9	-3847	402	429	474	325	504	414	543
32.0	24.3	25.4	22.6	48.9	2.3689	402	483	587	238	657	448	797
33.0	28.0	30.3	24.7	-43.7	-2.1158	402	442	495	317	513	406	602
34.0	27.0	29.0	24.0	9.1	4.413	402	442	523	341	544	422	624
35.0	30.2	33.1	26.1	-24.2	-1.1730	402	452	479	350	493	407	550
36.0	27.0	29.0	24.1	24.2	1.1730	402	433	514	311	514	392	636
37.0	30.9	33.9	26.5	-27.9	-1.3531	402	431	475	326	475	407	542
38.0	27.7	29.8	24.5	22.0	1.0675	402	436	492	325	492	399	585
39.0	28.5	30.9	25.0	-6.9	-3314	402	436	486	318	486	402	571
40.0	28.9	24.8	22.6	52.6	2.5477	402	501	591	144	635	412	859
41.0	28.0	30.0	25.1	-49.5	-2.4085	402	442	483	280	503	382	605
42.0	24.6	25.7	23.0	38.2	1.8523	402	496	569	163	606	348	791
43.0	27.9	29.7	25.0	-37.0	-1.7939	402	434	498	265	498	371	635
44.0	27.9	29.7	25.0	0.0	0.0000	402	456	477	244	498	371	635
45.0	27.3	29.1	24.7	4.5	-2174	402	432	497	272	497	362	633
46.0	27.9	29.7	25.0	-4.5	-2174	402	433	496	284	496	369	602
47.0	24.1	25.0	22.8	45.4	2.2085	402	507	598	189	598	325	870
48.0	28.5	30.5	25.6	-49.7	-2.4079	402	430	492	307	492	348	615
49.0	26.1	27.6	24.0	21.9	1.0608	402	452	480	283	508	367	677
50.0	29.0	31.1	26.0	-25.4	-1.2321	402	445	465	289	484	387	602
51.0	27.0	28.6	24.6	16.7	8.110	402	451	501	278	501	402	650
52.0	26.1	27.6	24.0	9.1	4.387	402	471	499	246	527	387	668
53.0	27.9	29.7	25.2	-16.6	-8066	402	439	484	306	484	373	617
54.0	24.4	25.4	23.0	39.7	1.9235	402	517	517	142	601	351	809
55.0	27.5	29.2	25.0	-37.1	-1.8004	402	450	497	259	497	354	617
56.0	26.5	28.0	24.3	10.0	4.839	402	472	499	252	499	334	664
57.0	27.9	29.6	25.2	-12.9	-6231	402	457	479	273	502	342	617
58.0	25.6	26.9	23.8	22.7	1.1019	402	502	534	270	566	343	725
59.0	26.8	28.4	24.6	-13.6	-6605	402	473	499	262	525	368	656
60.0	27.3	29.0	24.5	-4.9	-2381	402	470	519	258	519	347	641
61.0	25.6	26.9	23.8	18.4	8.930	402	483	547	260	547	323	706
62.0	28.5	30.4	25.7	-27.8	-1.3494	402	466	487	286	487	359	533
63.0	27.3	29.0	24.9	9.9	4.7935	402	449	522	302	498	351	644
64.0	26.8	28.4	24.5	4.9	2381	402	462	515	279	541	331	672
65.0	27.2	28.8	24.8	-3.3	-1613	402	465	515	290	515	340	640
66.0	26.1	27.5	24.1	10.7	5.174	402	498	527	266	527	334	701
67.0	27.9	29.6	25.2	-16.6	-8066	402	449	495	289	495	358	633
68.0	27.2	28.8	24.8	6.1	2942	402	477	502	277	527	327	651
69.0	26.5	27.9	24.3	-3.8	-1832	402	493	493	275	536	333	710
70.0	29.7	31.9	26.6	-26.1	-1.2658	402	468	490	245	548	328	685
71.0	25.3	26.4	23.6	39.5	1.9121	402	545	510	299	487	337	581
72.0	26.7	28.1	24.5	-16.5	-8002	402	496	524	194	580	299	756
73.0	26.3	27.7	24.3	-3.4	-1667	402	475	502	273	524	357	663
74.0	26.3	27.7	24.3	7.1	3449	402	510	539	263	528	343	661
75.0	30.1	32.2	26.9	-29.9	-1.4476	402	459	478	276	539	334	686
76.0	26.8	28.3	24.6	24.8	1.2027	402	511	511	307	496	345	591
77.0	26.6	24.2	22.7	47.8	2.3177	402	643	707	266	771	195	1027
78.0	26.3	27.6	24.4	-43.4	-2.1059	402	509	541	255	595	195	732
79.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	248	566	311	724
80.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	235	541	319	724
81.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	220	534	311	724
82.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	205	529	303	724
83.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	190	524	298	724
84.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	175	519	293	724
85.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	160	514	288	724
86.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	145	509	283	724
87.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	130	504	278	724
88.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	115	499	273	724
89.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	100	494	268	724
90.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	85	489	263	724
91.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	70	484	258	724
92.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	55	479	253	724
93.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	40	474	248	724
94.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	25	469	243	724
95.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	10	464	238	724
96.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	-5	459	233	724
97.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	-20	454	228	724
98.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	-35	449	223	724
99.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	-50	444	218	724
100.0	26.3	27.6	24.4	0.0	0.0000	402	502	534	-65	439	213	724

Table 5D — Inferred Pressurant Distribution, Scaling Run 106: Test Configuration 3

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI													
TIME TEMP DEC C		BETA BETA/TSTAR PRESSURANT FRACTION											
(SEC) MEAN AIR PRESSURANT		MEAN I = 1											
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COMMENCE VALVE OPENING		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
VALVE FULLY OPEN		0.025	-0.123	-0.325	0.134	-0.270	-0.013	-0.435	0.354	-0.032	0.189	0.207	0.262
VALVE FULLY CLOSED		0.076	-0.143	-0.633	0.061	-0.032	0.256	-0.022	0.174	-0.053	0.133	0.102	0.112
VALVE FULLY OPEN		0.149	0.178	0.036	0.060	0.036	0.288	0.060	0.225	0.083	0.217	0.16	0.186
VALVE FULLY CLOSED		0.184	0.213	0.117	0.110	0.117	0.289	0.137	0.241	0.158	0.206	0.18	0.206
VALVE FULLY OPEN		0.216	0.244	0.156	0.142	0.149	0.313	0.188	0.254	0.208	0.241	0.20	0.234
VALVE FULLY CLOSED		0.249	0.264	0.189	0.227	0.189	0.327	0.220	0.289	0.233	0.283	0.22	0.258
VALVE FULLY OPEN		0.273	0.281	0.213	0.269	0.232	0.336	0.275	0.293	0.256	0.293	0.23	0.275
VALVE FULLY CLOSED		0.306	0.323	0.256	0.286	0.280	0.359	0.329	0.341	0.292	0.311	0.26	0.298
VALVE FULLY OPEN		0.341	0.372	0.281	0.330	0.312	0.414	0.378	0.366	0.318	0.342	0.30	0.336
VALVE FULLY CLOSED		0.360	0.360	0.324	0.318	0.330	0.385	0.367	0.367	0.348	0.354	0.31	0.360
VALVE FULLY OPEN		0.378	0.375	0.351	0.369	0.351	0.405	0.399	0.405	0.369	0.391	0.35	0.405
VALVE FULLY CLOSED		0.381	0.386	0.367	0.367	0.361	0.423	0.392	0.404	0.374	0.380	0.35	0.398
VALVE FULLY OPEN		0.396	0.406	0.393	0.380	0.386	0.443	0.432	0.399	0.393	0.380	0.37	0.399
VALVE FULLY CLOSED		0.396	0.409	0.398	0.380	0.403	0.409	0.449	0.398	0.386	0.380	0.38	0.386
VALVE FULLY OPEN		0.396	0.396	0.404	0.404	0.389	0.404	0.447	0.404	0.389	0.382	0.36	0.404
VALVE FULLY CLOSED		0.396	0.396	0.390	0.406	0.382	0.406	0.464	0.406	0.382	0.390	0.35	0.406
VALVE FULLY OPEN		0.396	0.404	0.404	0.396	0.404	0.404	0.447	0.411	0.389	0.375	0.36	0.396
VALVE FULLY CLOSED		0.396	0.403	0.403	0.387	0.393	0.393	0.442	0.403	0.389	0.387	0.36	0.393
VALVE FULLY OPEN		0.396	0.400	0.400	0.385	0.393	0.385	0.442	0.403	0.385	0.387	0.36	0.393
VALVE FULLY CLOSED		0.396	0.396	0.412	0.388	0.396	0.388	0.442	0.396	0.388	0.388	0.37	0.388
VALVE FULLY OPEN		0.396	0.396	0.399	0.391	0.377	0.406	0.377	0.420	0.384	0.406	0.37	0.384
VALVE FULLY CLOSED		0.396	0.401	0.401	0.380	0.401	0.380	0.446	0.412	0.369	0.412	0.36	0.391
VALVE FULLY OPEN		0.396	0.395	0.402	0.381	0.402	0.381	0.436	0.423	0.374	0.393	0.38	0.388
VALVE FULLY CLOSED		0.396	0.391	0.399	0.375	0.423	0.367	0.438	0.423	0.375	0.407	0.37	0.383
VALVE FULLY OPEN		0.396	0.382	0.410	0.391	0.419	0.363	0.436	0.419	0.363	0.401	0.36	0.401
VALVE FULLY CLOSED		0.396	0.385	0.406	0.385	0.420	0.364	0.441	0.420	0.357	0.399	0.37	0.399
VALVE FULLY OPEN		0.396	0.397	0.397	0.388	0.431	0.354	0.448	0.423	0.354	0.406	0.36	0.397
VALVE FULLY CLOSED		0.396	0.400	0.400	0.390	0.430	0.350	0.470	0.420	0.350	0.400	0.36	0.400
VALVE FULLY OPEN		0.396	0.392	0.400	0.384	0.423	0.361	0.455	0.423	0.361	0.392	0.36	0.392
VALVE FULLY CLOSED		0.396	0.398	0.403	0.382	0.429	0.334	0.466	0.413	0.358	0.403	0.36	0.390
VALVE FULLY OPEN		0.396	0.389	0.411	0.389	0.433	0.334	0.466	0.411	0.367	0.411	0.35	0.400
VALVE FULLY CLOSED		0.396	0.394	0.429	0.394	0.441	0.346	0.477	0.394	0.370	0.394	0.37	0.382
VALVE FULLY OPEN		0.396	0.402	0.417	0.386	0.425	0.363	0.481	0.410	0.371	0.394	0.37	0.386
VALVE FULLY CLOSED		0.396	0.402	0.416	0.374	0.423	0.367	0.490	0.416	0.367	0.402	0.38	0.381
VALVE FULLY OPEN		0.396	0.406	0.453	0.370	0.453	0.370	0.493	0.406	0.346	0.394	0.38	0.370
VALVE FULLY CLOSED		0.396	0.403	0.429	0.378	0.445	0.378	0.437	0.395	0.353	0.393	0.38	0.370
VALVE FULLY OPEN		0.396	0.403	0.436	0.384	0.457	0.363	0.447	0.405	0.343	0.384	0.38	0.374
VALVE FULLY CLOSED		0.396	0.401	0.415	0.384	0.436	0.363	0.456	0.408	0.365	0.379	0.38	0.379
VALVE FULLY OPEN		0.396	0.423	0.464	0.356	0.441	0.356	0.491	0.383	0.343	0.356	0.38	0.356
VALVE FULLY CLOSED		0.396	0.416	0.441	0.383	0.433	0.366	0.441	0.400	0.358	0.375	0.39	0.375
VALVE FULLY OPEN		0.396	0.404	0.442	0.385	0.432	0.366	0.451	0.404	0.356	0.375	0.38	0.366
VALVE FULLY CLOSED		0.396	0.401	0.454	0.370	0.444	0.370	0.485	0.401	0.338	0.370	0.40	0.359
VALVE FULLY OPEN		0.396	0.395	0.454	0.375	0.444	0.375	0.484	0.405	0.335	0.375	0.38	0.365
VALVE FULLY CLOSED		0.396	0.403	0.447	0.377	0.447	0.351	0.447	0.412	0.342	0.368	0.40	0.351
VALVE FULLY OPEN		0.396	0.415	0.460	0.371	0.449	0.326	0.460	0.404	0.337	0.371	0.40	0.348
VALVE FULLY CLOSED		0.396	0.416	0.432	0.375	0.432	0.343	0.444	0.416	0.351	0.375	0.39	0.359
VALVE FULLY OPEN		0.396	0.419	0.455	0.360	0.443	0.312	0.455	0.419	0.336	0.372	0.39	0.360
VALVE FULLY CLOSED		0.396	0.402	0.429	0.367	0.420	0.323	0.429	0.429	0.338	0.383	0.39	0.367
VALVE FULLY OPEN		0.396	0.406	0.427	0.364	0.417	0.310	0.438	0.438	0.353	0.383	0.39	0.374
VALVE FULLY CLOSED		0.396	0.405	0.414	0.356	0.414	0.331	0.430	0.430	0.356	0.356	0.39	0.372
VALVE FULLY OPEN		0.396	0.405	0.414	0.356	0.414	0.331	0.430	0.430	0.356	0.356	0.39	0.372

(Table continues)

Table 5D – Inferred Pressurant Distribution, Scaling Run 106: Test Configuration 3 (Continued)

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Table 5E – Inferred Pressurant Distribution, Scaling Run 107: Test Configuration 3

[illegible]

(Table continues)

Table 5E — Inferred Pressurant Distribution, Sealing Run 107: Test Configuration 3 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI																													
TIME TEMP (DEG C)		BETA DELTA/TSTAR PRESSURANT FRACTION																											
(SEC)		MEAN AIR PRESSURANT		MEAN I = 1		2		3		4		5		6		7		8		9		10		11		12		13	
VALVE FULLY CLOSED																													
51.0	32.7	36.7	26.8	-1.3	-0.669	.403	.355	.355	.385	.415	.355	.395	.436	.415	.415	.38	.405	.415	.466										
52.0	33.4	37.7	27.1	-5.0	-.3295	.403	.362	.359	.380	.409	.382	.399	.437	.409	.409	.39	.409	.416	.456										
53.0	31.5	35.0	26.4	14.9	.8862	.403	.342	.389	.377	.400	.382	.400	.447	.423	.423	.38	.412	.423	.470										
54.0	29.8	32.5	25.8	18.3	.8453	.403	.331	.390	.376	.405	.386	.390	.450	.435	.420	.37	.420	.426	.479										
55.0	29.6	32.3	25.7	2.3	1.3039	.403	.324	.401	.370	.401	.380	.385	.446	.446	.416	.38	.416	.431	.472										
56.0	29.1	31.5	25.6	7.4	.3398	.403	.324	.391	.398	.391	.384	.375	.459	.459	.425	.37	.425	.442	.492										
57.0	29.0	31.3	25.5	2.7	1.2445	.403	.310	.398	.345	.398	.388	.380	.467	.467	.433	.36	.415	.433	.502										
58.0	27.9	29.7	25.3	19.6	.70580	.403	.307	.375	.352	.421	.397	.375	.466	.466	.443	.35	.398	.443	.533										
59.0	30.2	33.1	25.9	-35.1	-1.6189	.403	.337	.337	.378	.418	.387	.392	.434	.434	.420	.38	.398	.443	.533										
60.0	32.6	35.5	26.7	-22.6	-1.0425	.403	.357	.358	.387	.418	.387	.387	.438	.428	.408	.38	.398	.443	.533										
61.0	29.2	31.5	25.8	26.6	1.2380	.403	.331	.403	.391	.435	.351	.405	.435	.435	.420	.39	.398	.443	.533										
62.0	28.1	29.9	25.3	27.7	1.2771	.403	.309	.418	.396	.440	.398	.396	.440	.440	.440	.37	.398	.443	.533										
63.0	30.8	34.0	26.1	-38.4	-1.7719	.403	.334	.410	.410	.410	.387	.410	.422	.422	.422	.39	.385	.422	.448										
64.0	29.8	32.5	25.8	11.8	.5440	.403	.327	.415	.415	.430	.382	.415	.415	.415	.430	.415	.38	.386	.415	.445									
65.0	29.8	32.5	25.8	0.0	0.0060	.403	.335	.409	.409	.438	.380	.423	.409	.423	.409	.39	.379	.409	.453										
66.0	29.5	32.0	25.7	4.6	.2121	.403	.334	.413	.413	.428	.384	.413	.413	.428	.413	.39	.381	.413	.460										
67.0	31.2	34.5	26.2	-19.7	-.70667	.403	.355	.403	.403	.438	.383	.403	.415	.427	.403	.40	.391	.403	.451										
68.0	26.7	27.1	26.2	72.0	3.3267	.403	.341	.459	.355	.469	.404	.459	.452	.452	.459	.35	.385	.445	.564										
69.0	31.4	32.7	29.3	-72.9	-3.3625	.403	.367	.423	.394	.481	.249	.394	.452	.452	.423	.39	.365	.394	.514										
70.0	29.3	30.3	27.8	23.6	1.0879	.403	.309	.409	.409	.490	.208	.449	.449	.449	.449	.36	.329	.449	.490										
71.0	29.7	31.9	28.8	-17.0	-.7820	.403	.322	.430	.398	.462	.270	.430	.430	.430	.430	.39	.384	.430	.526										
72.0	25.1	30.1	27.7	19.5	.5974	.403	.359	.487	.384	.505	.217	.425	.467	.425	.425	.42	.391	.482	.509										
73.0	30.3	31.5	28.6	-15.8	-.7269	.403	.368	.437	.403	.470	.288	.437	.437	.437	.437	.43	.336	.403	.504										
74.0	31.0	32.3	29.1	-7.3	-.3382	.403	.345	.435	.384	.445	.293	.415	.445	.445	.445	.41	.323	.415	.476										
75.0	29.8	32.1	28.9	1.7	.0885	.403	.328	.434	.403	.434	.28	.403	.466	.474	.434	.40	.340	.434	.497										
76.0	27.8	29.4	28.0	45.2	2.0858	.403	.333	.486	.359	.486	1.06	.422	.486	.486	.486	.42	.296	.486	.486										
77.0	30.7	31.9	28.9	-43.7	-2.0166	.403	.357	.431	.398	.431	.284	.398	.431	.465	.431	.39	.364	.431	.448										
78.0	28.3	29.0	27.2	33.6	1.5904	.403	.324	.441	.386	.441	1.70	.386	.495	.549	.441	.44	.332	.441	.495										
79.0	30.5	31.7	28.8	-31.9	-1.4723	.403	.312	.416	.382	.451	.243	.416	.451	.451	.451	.41	.347	.416	.486										
80.0	29.3	30.2	27.9	15.1	.5979	.403	.385	.413	.370	.455	.243	.413	.455	.455	.455	.41	.328	.455	.498										
81.0	30.2	31.3	28.5	-11.3	-.3192	.403	.367	.454	.381	.454	.234	.417	.454	.454	.454	.43	.307	.417	.527										
82.0	28.8	29.6	27.5	19.2	.8859	.403	.375	.465	.370	.465	.180	.418	.465	.513	.418	.41	.323	.418	.513										
83.0	31.4	32.7	29.4	-31.2	-1.4382	.403	.361	.424	.363	.455	.278	.394	.455	.455	.455	.43	.332	.424	.517										
84.0	27.8	28.3	26.9	49.3	2.2752	.403	.324	.429	.292	.467	1.83	.361	.498	.566	.429	.49	.292	.429	.498										
85.0	29.8	30.8	28.4	-35.0	-1.8151	.403	.310	.435	.351	.477	.248	.393	.477	.477	.477	.43	.331	.477	.519										
86.0	30.0	31.0	28.5	-2.2	-.0997	.403	.337	.419	.378	.500	.215	.419	.459	.459	.459	.43	.337	.419	.500										
87.0	27.8	28.3	26.9	36.9	1.7039	.403	.383	.392	.392	.602	.043	.462	.602	.602	.602	.46	.253	.462	.532										
88.0	31.7	33.0	29.8	-51.8	-2.3884	.403	.350	.418	.386	.481	.258	.418	.481	.481	.481	.45	.322	.418	.513										
89.0	30.0	31.0	28.5	17.7	.8177	.403	.328	.409	.369	.490	.27	.409	.531	.409	.369	.45	.328	.409	.531										
90.0	27.4	27.9	26.7	44.5	2.0748	.403	.321	.466	.466	.547	-.023	.466	.547	.466	.384	.46	.221	.466	.547										
91.0	29.8	30.7	28.4	-43.2	-1.9915	.403	.366	.460	.416	.460	.199	.460	.504	.416	.373	.41	.329	.416	.504										
92.0	30.3	31.3	28.8	-6.2	-.2876	.403	.317	.437	.437	.437	1.56	.437	.477	.477	.477	.43	.317	.437	.517										
93.0	29.3	29.7	28.8	0.0	0.0040	.403	.314	.434	.434	.474	1.83	.434	.474	.474	.474	.43	.314	.434	.514										
94.0	29.8	30.7	28.4	6.2	.2876	.403	.322	.457	.457	.457	1.93	.457	.457	.457	.457	.41	.326	.457	.500										
95.0	29.0	29.7	27.8	12.3	.5662	.403	.304	.450	.458	.510	.150	.458	.458	.458	.458	.40	.256	.458	.500										
96.0	29.3	30.1	28.0	-5.3	-.2430	.403	.339	.451	.451	.451	.144	.451	.451	.451	.451	.43	.307	.451	.499										
97.0	31.9	33.1	30.0	-28.0	-1.2898	.403	.350	.418	.418	.451	.223	.451	.451	.451	.451	.41	.353	.418	.516										
98.0	29.3	30.1	28.1	28.0	1.2898	.403	.322	.418	.418	.466	1.77	.466	.466	.466	.466	.41	.322	.418	.514										
99.0	29.1	29.9	27.9	2.6	1.187	.403	.300	.399	.399	.489	.151	.449	.449	.449	.449	.44	.349	.449	.549										
100.0	31.4	32.5	29.6	-26.0	-1.2004	.403	.315	.384	.384	.489	.149	.419	.419	.419	.419	.41	.349	.419	.523										

Table 5F -- Inferred Pressurant Distribution, Scaling Run 113: Test Configuration 3

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI														
TIME TEMP.(DEG C)		BETA		PRESSURANT FRACTION		MEAN I = 1		MEAN AIR PRESSURANT						
SEC	SEC	1	2	3	4	5	6	7	8	9	10	11	12	13
COMMENCE VALVE OPENING														
0	0	26.0	26.0	-25.8	3	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1	0	26.9	26.8	18.3	1024	7-11.7080	-0.011	1.08	0.97	0.97	0.97	0.85	0.03	-0.07
VALVE FULLY OPEN														
2	0	31.8	32.1	25.7	12.4	6546	0.041	1.83	257	726	241	335	0.07	0.38
3	0	35.6	36.3	26.8	1.5	0570	0.075	-0.08	-0.29	527	-0.71	118	-1.02	1.71
4	0	37.9	39.8	26.5	14.9	1.1040	1.42	1.20	112	428	0.75	180	0.59	1.65
5	0	39.3	42.2	27.3	13.2	8017	1.92	1.64	144	379	1.37	224	1.30	1.71
6	0	40.3	43.9	27.9	10.6	3728	2.20	2.81	182	345	1.76	226	1.69	2.82
7	0	40.9	45.2	28.4	12.0	4586	2.53	2.52	232	348	2.46	270	2.46	3.22
8	0	40.6	45.2	28.5	16.1	4567	2.74	2.76	234	312	2.40	282	2.58	2.88
9	0	40.7	45.8	28.9	13.5	5120	3.01	3.14	267	332	2.73	308	2.85	3.20
10	0	40.6	46.1	29.2	14.2	5781	3.29	3.12	312	335	3.06	330	2.94	3.71
COMMENCE VALVE CLOSURE														
11	0	40.6	46.5	29.5	13.7	3927	3.48	3.30	330	348	3.30	342	3.30	3.83
12	0	40.6	46.7	30.1	-36.6	4154	3.67	3.70	364	370	3.58	382	3.64	4.13
VALVE FULLY CLOSED														
13	0	40.2	46.1	30.3	-27.0	3667	3.76	3.72	372	359	3.78	370	3.59	4.56
14	0	44.2	51.3	32.4	53.8	-6.113	3.76	3.67	362	351	3.67	367	3.62	4.30
15	0	39.7	45.5	30.2	-61.8	7023	3.76	3.66	366	334	3.66	366	3.66	4.38
16	0	39.8	45.7	30.2	2.7	-0.512	3.76	3.68	361	309	3.55	348	3.68	4.32
17	0	40.7	46.8	30.6	13.2	-1.585	3.76	3.53	384	322	3.85	359	3.77	4.59
18	0	39.8	45.7	30.2	-13.2	1585	3.76	3.57	357	299	3.50	331	3.50	4.21
19	0	39.5	44.4	28.3	-73.3	8327	3.76	3.32	349	283	3.24	307	3.40	4.39
20	0	41.6	47.9	31.0	98.1	-1.1541	3.76	3.33	357	315	3.39	327	3.45	4.04
21	0	38.6	44.1	29.6	-45.6	5179	3.76	3.39	363	308	3.43	322	3.56	4.46
22	0	37.1	42.1	28.8	-28.7	3258	3.76	3.61	399	346	3.68	353	3.99	4.74
23	0	39.5	45.2	30.0	43.1	-4.8932	3.76	3.46	372	326	3.59	333	3.72	4.38
24	0	35.5	40.0	28.2	7.5	8875	3.76	3.30	362	303	3.20	295	3.45	4.21
25	0	38.3	43.6	29.4	55.4	-6.294	3.76	3.32	369	313	3.27	313	3.55	4.19
26	0	39.2	44.8	29.8	14.9	-1.688	3.76	3.34	367	317	3.24	311	3.57	4.51
27	0	39.7	45.4	30.1	8.5	-0.961	3.76	3.17	363	317	3.24	317	3.50	4.28
28	0	38.8	44.3	29.7	-14.3	1622	3.76	3.12	360	319	3.26	319	3.53	4.22
29	0	37.6	42.7	29.1	-21.7	2463	3.76	3.07	358	314	3.07	307	3.44	4.17
30	0	39.3	45.0	29.9	30.3	-3.446	3.76	3.13	366	319	3.13	319	3.52	4.19
31	0	36.9	41.8	28.8	-43.7	4361	3.76	2.99	376	322	3.07	307	3.61	3.99
32	0	40.7	46.8	30.6	64.9	-7.7377	3.76	3.30	367	324	3.18	318	3.61	3.98
33	0	39.3	45.0	29.9	-21.6	2432	3.76	3.36	409	349	3.89	422	330	369
34	0	39.5	45.2	30.0	2.8	-0.320	3.76	3.12	377	325	3.18	312	3.58	3.91
35	0	35.7	40.2	28.2	-71.7	8142	3.76	3.37	419	344	3.35	319	3.86	4.44
36	0	35.4	39.8	28.1	-7.9	0580	3.76	3.02	396	328	3.11	302	3.71	3.96
37	0	39.0	44.5	29.8	71.0	-8.070	3.76	3.19	393	339	3.32	303	3.66	3.86
38	0	37.6	42.7	29.1	-24.6	2395	3.76	3.14	407	348	3.61	312	3.92	3.85
39	0	34.2	38.1	27.6	-76.5	8688	3.76	3.33	438	362	3.43	305	4.19	3.91
40	0	33.8	37.7	27.4	-9.5	1074	3.76	3.14	412	353	3.24	285	4.02	3.83
41	0	39.2	44.8	29.8	111.7	-1.2694	3.76	3.38	462	415	4.02	368	4.48	4.52
42	0	39.5	45.2	30.0	5.7	-0.645	3.76	3.55	417	378	3.65	339	4.11	4.04
43	0	36.1	40.7	28.4	-64.2	7284	3.76	3.32	442	385	3.68	328	4.17	3.55
44	0	33.3	37.7	27.4	-55.0	8243	3.76	3.35	440	372	3.62	314	4.01	3.43
45	0	32.6	37.4	27.3	-4.9	0555	3.76	3.30	459	400	3.90	330	4.19	4.19
46	0	37.4	42.5	29.0	87.1	-9.981	3.76	3.38	409	373	3.65	328	3.87	3.50
47	0	39.0	44.6	29.7	27.9	-3.167	3.76	3.34	408	367	3.60	333	3.81	3.67
48	0	38.6	44.1	29.6	-5.9	0671	3.76	3.38	440	399	3.92	358	4.13	4.20
49	0	34.7	38.8	27.8	-81.6	9266	3.76	3.40	443	407	3.79	334	4.25	3.98
50	0	34.0	37.9	27.5	-18.1	2060	3.76	3.33	420	382	3.63	324	4.01	3.57

(Table continues)

Table 5F — Inferred Pressurant Distribution, Scaling Run 113: Test Configuration 3 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME TEMP (DEC C)		BETA BETA/TSTAR PRESSURANT FRACTION										
(SEC) MEAN AIR PRESSURANT		MEAN I = 1										
VALVE FULLY CLOSED												
51.0	37.3	37.0	27.2	-19.8	-2244	376	348	399	368	348	317	399
52.0	34.8	39.1	27.8	42.1	-4282	376	340	393	375	357	313	384
53.0	37.8	43.0	29.2	62.3	-7077	376	358	409	387	373	344	402
54.0	35.2	44.8	29.8	24.3	-2757	376	386	433	406	400	373	420
55.0	36.2	40.9	28.5	-55.0	-6245	376	409	466	433	425	385	457
56.0	33.6	37.4	27.4	-63.4	-7204	376	374	444	414	384	345	434
57.0	35.1	40.7	28.4	59.8	-6289	376	338	403	371	347	314	387
58.0	41.9	48.4	31.2	59.0	-11250	376	375	416	398	381	363	410
59.0	38.3	43.7	29.4	-56.3	-6398	376	357	399	378	357	336	392
60.0	33.3	36.9	27.2	-111.8	1.2707	376	493	565	524	503	462	534
61.0	34.0	37.9	27.5	19.8	-2244	376	459	537	488	469	440	508
62.0	37.1	42.0	28.9	71.3	-8100	376	455	508	478	463	432	486
63.0	37.4	42.5	29.1	6.7	-0763	376	355	415	385	370	340	385
64.0	33.8	37.6	27.5	-82.4	-9366	376	450	529	480	460	430	480
65.0	33.5	37.2	27.3	-9.9	-1122	376	346	417	367	356	316	377
66.0	34.5	38.6	27.8	28.4	-3222	376	359	424	387	369	332	387
67.0	38.8	44.3	29.7	88.7	-1.0072	376	373	415	387	373	346	380
68.0	35.0	39.3	28.0	-76.2	-8654	376	347	400	382	359	320	364
69.0	34.8	39.0	27.9	-4.2	-0481	376	341	404	377	359	314	377
70.0	31.7	38.8	27.8	-4.3	-0490	376	351	415	379	360	333	388
71.0	31.7	34.8	26.7	-89.0	1.0106	376	343	417	380	367	318	392
72.0	38.3	43.7	29.4	159.1	-1.8077	376	355	405	376	376	341	384
73.0	34.0	37.9	27.5	-93.2	1.0583	376	397	455	417	417	369	417
74.0	35.7	40.2	28.2	42.7	-4849	376	356	406	381	373	331	373
75.0	35.5	40.0	28.2	-3.9	-0446	376	363	414	388	380	338	388
76.0	33.3	37.0	27.2	-58.3	-6625	376	374	415	385	374	323	385
77.0	38.0	43.2	29.2	106.0	-1.2042	376	371	400	378	371	335	371
78.0	34.0	37.9	27.5	-87.2	-9905	376	386	424	395	386	337	386
79.0	35.4	41.1	28.6	57.5	-6535	376	374	406	382	382	326	382
80.0	35.7	40.2	28.2	-15.0	-1708	376	374	407	381	382	341	382
81.0	35.0	39.3	27.9	-16.1	1.0213	376	370	405	387	370	335	379
82.0	33.8	37.7	27.4	-31.4	-3568	376	400	439	420	410	361	420
83.0	37.6	42.7	29.1	85.6	-9725	376	373	395	380	380	344	380
84.0	31.6	34.5	26.7	-153.9	1.7481	376	362	413	388	375	311	388
85.0	36.1	40.6	28.6	125.6	-1.4269	376	365	398	382	382	332	382
86.0	33.6	37.3	27.5	-59.8	-6789	376	366	396	386	376	335	386
87.0	36.2	40.8	28.6	63.4	-7204	376	393	418	409	401	368	409
88.0	34.7	38.7	27.9	-36.0	-4087	376	372	390	381	381	335	381
89.0	33.8	37.6	27.6	-22.9	-2601	376	367	387	377	377	337	377
90.0	35.7	40.1	28.4	47.4	-5386	376	377	386	377	377	343	386
91.0	33.0	36.4	27.2	-72.5	-8228	376	379	390	379	379	336	390
92.0	35.9	40.3	28.5	76.3	-8664	376	384	393	384	384	342	384
93.0	32.1	35.2	26.9	-104.0	1.1815	376	408	432	408	408	348	408
94.0	32.0	44.5	29.9	158.4	-1.8001	376	380	394	387	380	346	387
95.0	32.6	39.9	27.1	-142.7	1.6213	376	391	402	391	379	322	391
96.0	38.1	43.3	29.6	129.1	-1.4665	376	374	389	374	367	338	382
97.0	33.6	37.3	27.6	-99.4	1.1294	376	383	393	383	373	332	378
98.0	34.8	38.9	28.1	32.1	-3642	376	378	387	378	378	332	378
99.0	35.0	39.1	28.2	4.2	-0481	376	377	395	386	377	331	386
100.0	34.8	38.9	28.1	-4.2	-0481	376	375	394	384	375	329	384

Table 5G - Inferred Pressurant Distribution, Sealing Run 114: Test Configuration 3

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI																	
TIME TEMP(DEC C)		BETA BETA/TSTAR PRESSURANT FRACTION															
(SEC)	MEAN	AIR	PRESSURANT	MEAN	1	2	3	4	5	6	7	8	9	10	11	12	13
COMMERCE VALVE OPENING																	
0.0	26.3	26.8	52.5	1.0	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.0	27.3	27.4	26.7	719.5	12.9530	0.018	799	799	799	799	799	799	799	799	799	799	799
VALVE FULLY OPEN																	
2.0	31.9	32.2	27.7	40.5	2.7724	0.083	206	381	905	359	402	074	053	582	122	23	319
3.0	36.0	36.8	29.5	-4.2	-1.483	114	-008	006	690	-062	170	-076	280	-172	170	02	211
4.0	39.3	40.1	29.3	13.8	8235	166	110	091	508	027	202	045	239	045	202	19	230
5.0	39.9	42.1	29.6	10.2	4000	198	165	126	408	118	196	141	243	141	220	14	212
6.0	40.8	44.4	29.9	13.0	7617	244	199	185	372	171	227	192	303	213	275	20	289
7.0	41.2	43.3	30.2	13.4	5278	273	233	213	332	220	299	246	309	253	292	23	312
8.0	41.3	43.8	30.3	13.5	2949	289	270	244	334	244	315	270	314	276	283	25	315
9.0	41.2	46.2	30.4	14.5	5734	316	299	286	337	292	356	305	343	299	318	29	343
10.0	41.2	46.7	30.7	14.1	6182	346	331	320	351	326	364	345	364	339	345	32	364
COMMERCE VALVE CLOSED																	
11.0	41.6	47.6	31.1	11.7	3939	367	384	372	384	366	390	390	384	293	360	35	317
12.0	40.9	46.9	31.4	33.3	6034	388	379	354	379	360	392	399	405	399	379	36	426
VALVE FULLY CLOSED																	
13.0	40.6	46.6	31.3	5.4	0372	390	393	341	373	354	439	400	419	393	386	34	406
14.0	45.9	53.4	34.1	-43.8	-7947	390	380	360	360	363	386	380	412	406	401	37	412
15.0	47.4	55.4	35.0	-10.9	-1976	390	375	370	331	370	373	393	410	390	393	38	414
16.0	44.8	52.0	33.5	18.6	3382	390	393	388	356	388	383	410	415	345	383	37	388
17.0	42.7	49.3	32.4	17.0	3081	390	380	369	339	357	363	404	404	410	392	38	410
18.0	43.6	50.3	32.9	-7.3	-1332	390	435	424	395	418	407	438	435	333	424	40	355
19.0	44.8	52.0	33.5	-9.6	-1732	390	382	376	334	365	349	403	403	409	387	38	398
20.0	43.3	50.0	32.7	12.5	2276	390	382	376	347	370	330	405	411	405	382	39	394
21.0	43.3	50.0	32.7	0.0	0000	390	382	376	347	370	330	405	411	405	382	39	394
22.0	44.1	51.1	33.2	-7.1	-1290	390	375	387	353	359	325	414	398	403	392	38	387
23.0	42.4	48.5	32.2	14.6	2649	390	368	380	356	356	326	398	404	416	398	36	404
24.0	41.3	47.3	31.7	9.6	1737	390	355	387	349	349	317	393	399	424	399	39	399
25.0	46.0	53.6	34.2	-38.4	-6968	390	392	422	381	386	356	422	412	119	422	41	417
26.0	42.7	49.3	32.4	25.9	4709	390	356	404	350	362	309	398	398	421	398	39	386
27.0	40.5	46.4	31.2	21.1	3829	390	365	409	343	363	296	402	389	415	402	39	389
28.0	42.9	49.6	32.5	-22.6	-4100	390	363	404	346	369	311	399	387	404	404	41	387
29.0	39.1	44.3	30.3	37.2	6739	390	331	408	337	358	294	394	387	408	415	41	387
30.0	44.5	51.6	33.3	-49.7	-9025	390	339	408	348	359	310	386	392	403	408	41	386
31.0	42.2	48.7	32.1	18.9	3426	390	356	410	350	356	313	380	392	404	410	41	386
32.0	40.5	46.4	31.2	16.5	2939	390	357	410	344	350	311	383	397	403	410	41	390
33.0	43.3	50.0	32.7	-25.5	-4631	390	352	410	347	347	318	387	404	398	404	42	386
34.0	41.9	48.2	31.9	12.2	2213	390	355	416	349	337	312	386	404	392	410	42	386
35.0	40.6	46.6	31.3	11.6	2112	390	381	433	374	368	335	420	433	407	074	45	414
36.0	40.6	46.6	31.3	0.0	0000	390	344	422	350	350	311	396	396	389	403	44	376
37.0	43.8	50.7	32.9	-78.0	-5092	390	350	418	361	350	311	390	401	390	401	43	384
38.0	41.0	47.1	31.5	24.6	4476	390	349	426	362	355	304	394	400	388	394	43	381
39.0	37.8	42.9	29.9	34.2	6218	390	338	423	346	354	292	400	400	385	392	44	377
40.0	41.9	48.2	31.9	-42.3	-7680	390	354	421	360	354	317	403	390	378	390	43	384
41.0	42.9	49.6	32.5	-9.2	-1678	390	387	452	353	387	346	428	428	422	417	45	264
42.0	38.9	44.3	30.4	39.1	7110	390	344	424	359	344	294	395	409	395	373	43	381
43.0	41.0	47.1	31.5	-21.9	-3980	390	363	421	363	350	299	393	401	388	382	42	376
44.0	42.9	49.6	32.5	-17.4	-3166	390	338	417	364	358	311	399	399	393	387	42	370
45.0	42.2	48.7	32.1	6.1	1187	390	350	423	363	356	308	399	399	387	387	42	381
46.0	38.0	43.1	29.0	43.3	7336	390	347	423	362	339	286	401	393	393	385	43	385
47.0	37.1	42.0	29.6	11.1	2020	390	346	427	363	338	290	395	393	395	387	42	379
48.0	41.0	47.1	31.5	-43.0	-7816	390	356	421	369	350	303	401	401	395	388	41	382
49.0	42.4	48.9	32.2	-12.9	-2143	390	338	424	362	364	310	400	406	400	388	41	388
50.0	41.5	47.7	31.8	7.9	1435	390	338	426	376	351	308	402	402	389	383	40	376

(Table Continues)

Table 5G -- Inferred Pressurant Distribution, Scaling Run 114: Test Configuration 3 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI																			
TIME TEMP. DEC. (SEC)		BETA BETA/ISTAR PRESSURANT FRACTION																	
MEAN AIR PRESSURANT		MEAN I = 1																	
VALVE FULLY CLOSED		1	2	3	4	5	6	7	8	9	10	11	12	13					
51.0	37.1	42.0	29.6	47.9	8696	390	335	420	371	347	298	404	404	387	387	41	379	436	469
52.0	38.0	43.1	30.0	-11.1	-2020	390	339	421	375	352	306	405	398	390	390	40	375	428	466
53.0	41.5	47.7	31.8	-37.0	-6723	390	365	415	384	365	315	356	396	384	390	40	384	413	453
54.0	42.6	49.1	32.3	-9.5	-1717	390	385	413	383	359	323	401	401	389	383	40	383	413	453
55.0	41.0	47.0	31.5	14.4	2620	390	371	409	384	364	326	403	396	390	384	40	377	409	454
56.0	36.8	41.5	29.5	47.6	8649	390	337	407	373	363	307	398	398	398	382	41	382	423	465
57.0	36.6	41.3	29.4	2.4	0440	390	366	417	383	383	307	391	391	391	374	40	374	425	459
58.0	40.6	46.6	31.3	-46.6	-8472	390	376	409	382	376	323	402	396	389	376	40	369	409	455
59.0	41.2	47.3	31.6	-5.1	-0927	390	377	403	377	371	326	403	396	384	377	41	371	416	454
60.0	41.5	47.7	31.8	-3.3	-0600	390	375	400	381	368	331	406	393	393	375	41	368	416	450
61.0	41.0	47.0	31.5	5.0	0965	390	377	402	383	364	325	402	396	389	377	42	370	415	448
62.0	39.1	44.5	30.6	20.0	3625	390	374	403	381	367	324	403	388	388	367	42	374	417	460
63.0	37.0	41.7	29.5	25.7	4661	390	366	407	382	366	317	399	382	399	366	42	374	423	464
64.0	36.3	40.8	29.2	9.8	1724	390	478	530	504	486	435	521	495	512	460	49	141	101	115
65.0	41.3	47.5	31.7	-58.0	-10527	390	385	413	382	375	338	394	382	394	375	41	375	413	445
66.0	41.9	48.2	31.9	-4.9	-0884	390	421	458	427	427	390	440	439	452	460	335	20	411	464
67.0	38.2	43.4	30.1	38.1	6920	390	436	474	436	444	399	459	452	467	263	46	021	240	512
68.0	40.5	46.4	31.2	-24.9	-4522	390	449	476	449	449	410	469	436	478	350	44	344	231	383
69.0	41.5	47.7	31.8	-10.1	-1843	390	480	499	480	474	436	453	493	504	355	45	349	255	298
70.0	41.0	47.0	31.5	5.0	0965	390	440	477	451	444	406	470	484	470	419	18	341	354	329
71.0	42.0	48.4	32.0	-9.8	-1778	390	367	404	386	367	337	398	386	404	374	41	374	422	447
72.0	42.4	48.9	32.2	-3.1	-0566	390	364	400	376	370	334	394	394	406	376	41	376	416	444
73.0	41.0	47.0	31.5	12.9	2343	390	449	487	462	455	423	481	249	288	455	35	352	249	359
74.0	38.7	44.1	30.4	23.9	4341	390	383	407	378	378	334	400	392	407	378	42	385	436	385
75.0	37.5	42.4	29.8	14.9	2698	390	338	414	382	374	335	466	406	427	374	42	350	437	477
76.0	40.3	46.1	31.1	-31.7	-5766	390	436	466	440	440	406	460	460	460	213	366	44	226	440
77.0	43.8	50.7	33.0	-31.5	-5723	390	509	537	509	515	481	531	317	137	228	18	216	458	396
78.0	39.9	45.7	31.0	35.1	6368	390	438	472	445	445	404	465	241	404	382	37	248	384	432
79.0	38.7	44.1	30.4	13.4	2435	390	385	409	380	380	336	394	394	409	385	42	373	424	416
80.0	38.4	43.6	30.2	4.1	0742	390	364	401	379	371	326	393	393	401	371	41	371	416	468
81.0	42.4	48.9	32.2	-40.6	-7384	390	377	407	383	372	347	395	401	401	372	41	339	413	455
82.0	38.9	44.3	30.5	34.7	6300	390	366	409	373	373	329	394	394	409	366	41	373	409	459
83.0	39.4	45.0	30.7	-5.8	-1058	390	373	415	373	380	331	401	394	387	359	41	373	408	457
84.0	37.7	42.7	29.9	20.4	3711	390	395	442	395	410	348	426	090	426	387	43	395	434	488
85.0	38.4	43.6	30.2	-8.6	-1554	390	393	438	401	408	356	431	423	311	386	23	364	431	490
86.0	41.9	48.2	32.0	-36.0	-6547	390	459	496	459	471	422	490	404	478	410	21	422	213	132
87.0	41.9	48.2	32.0	0.0	0000	390	453	440	409	415	366	434	372	323	255	34	403	434	472
88.0	40.6	46.6	31.3	11.6	2112	390	422	462	435	435	389	455	332	285	383	38	357	403	429
89.0	39.9	45.7	31.0	7.1	1293	390	427	475	434	441	386	461	339	223	373	33	430	352	407
90.0	39.8	45.4	30.9	1.8	0334	390	464	512	471	485	430	499	410	300	300	22	320	334	350
91.0	37.5	42.4	29.8	26.4	4788	390	430	497	450	466	403	482	213	332	284	41	292	363	419
92.0	37.0	41.7	29.5	6.9	1253	390	470	519	470	486	421	503	364	159	462	12	372	339	380
93.0	42.9	49.6	32.3	-62.1	-11278	390	481	510	475	493	446	499	347	364	277	31	312	359	189
94.0	44.7	51.8	33.4	-14.1	-2568	390	414	441	414	425	381	430	343	403	334	41	289	349	414
95.0	39.6	45.2	30.8	45.4	8251	390	387	415	380	394	339	408	332	401	380	39	380	405	450
96.0	40.1	45.9	31.0	-5.5	-1062	390	390	417	377	397	343	404	397	404	377	42	384	323	431
97.0	37.8	42.9	29.9	25.6	4652	390	418	519	480	495	434	503	118	334	237	51	172	295	465
98.0	41.7	48.0	31.8	-40.7	-7395	390	451	482	445	457	408	476	308	389	339	37	377	240	327
99.0	40.5	46.4	31.2	11.8	2137	390	422	455	415	429	376	448	395	244	316	41	297	396	462
100.0	38.9	44.3	30.4	16.8	3046	390	430	459	416	430	373	452	351	387	308	40	330	344	387

Table 5H — Inferred Pressurant Distribution, Scaling Run 115: Test Configuration 3

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI													
TIME TEMP. DEG C)		BETA BETA/TSTAR PRESSURANT FRACTION											
(SEC) MEAN AIR PRESSURANT		MEAN I = 1											
		2	3	4	5	6	7	8	9	10	11	12	13
COMMENCE VALVE OPENING													
0 0 28.2 28.2 28.3	8 0 0000	0 000	0 000	0 000	0 000	0 000	0 000	0 000	0 000	0 000	0 000	0 000	0 000
1 0 29.3 29.4 27.3	315.2 9.3964	029	-240 006	449	056 -092	-437	203-1 274	-584	-48	-191	-338	3 304	
VALVE FULLY OPEN													
2 0 34.8 35.4 29.1	11.6 6.980	086	-127 -063	688	-127	113 -239	145 -574	081	-04	081	-063	1 246	
3 0 37.9 39.3 29.6	17.5 1.2586	149	046 046	560 -026	180 -026	180 -026	149 -098	128	04	046	036	948	
4 0 40.1 42.5 30.5	14.2 9.9564	204	121 162	5 3 129	229 071	204 045	171 11	204	171	11	204	580	
5 0 41.8 44.7 31.3	-11.2 -1.344	214	-211 181	442	181 263	181 270	-020 241	19	174	072	382		
6 0 42.4 46.2 31.4	13.2 6.937	252	237 196	393	196 257	237 298	230 264	-03	284	162	535		
7 0 42.0 46.1 31.3	17.3 6.215	278	246 199	327	192 253	226 280	186 253	15	280	260	738		
8 0 42.9 47.9 31.9	11.2 5.263	312	313 276	363	282 319	301 182	276 282	26	157	307	732		
9 0 42.2 47.4 31.8	17.6 6.221	336	310 253	323	259 285	291 342	298 291	27	342	316	777		
10 0 42.2 47.6 31.9	14.4 2.712	348	342 278	329	291 335	335 342	240 278	29	354	323	779		
COMMENCE VALVE CLOSURE													
11 0 42.2 48.1 32.1	13.9 4.854	370	320 322	353	341 378	372 372	297 360	34	335	266	741		
12 0 42.7 49.0 33.0	17.9 5.334	396	409 390	415	396 434	415 390	195 264	31	434	421	672		
VALVE FULLY CLOSED													
13 0 42.3 48.5 33.4	14.0 4.189	410	435 395	415	408 441	448 408	137 415	35	276	355	838		
14 0 43.2 49.7 33.5	-4.9 -1.471	410	406 355	361	368 393	412 387	412 387	36	431	425	621		
15 0 39.9 45.3 32.1	20.4 6.050	410	390 344	329	360 344	390 155	435 420	36	413	426	938		
16 0 38.9 44.0 31.6	7.7 2.290	410	414 382	366	398 374	438 455	438 252	23	236	390	949		
17 0 37.2 41.6 30.8	14.6 4.349	410	348 311	266	311 293	357 394	422 394	34	403	422	1 036		
18 0 37.7 42.3 31.0	-4.7 -1.389	410	400 383	347	374 356	427 444	453 153	29	338	268	1 089		
19 0 39.6 44.9 32.0	-15.1 -4.969	410	358 350	311	342 311	381 412	404 373	28	412	428	954		
20 0 34.9 38.5 29.8	42.6 1.2738	410	398 398	330	364 330	444 376	444 444	44	467	478	410		
21 0 39.1 44.2 31.7	-39.0 -1.1552	410	433 433	392	417 384	481 113	392 441	45	014	505	859		
22 0 36.5 40.7 30.5	22.4 6.698	410	378 388	339	368 310	417 417	417 427	-24	437	505	1 152		
23 0 39.1 44.2 31.7	-22.4 -6.698	410	377 369	337	345 304	417 393	417 409	11	377	482	989		
24 0 39.9 45.3 32.2	-6.3 -1.894	410	378 378	355	355 317	439 447	439 210	30	431	492	775		
25 0 34.3 37.5 29.5	53.1 1.5868	410	361 373	348	310 248	473 266	373 448	41	298	561	1 388		
26 0 39.1 44.1 31.8	-47.3 -1.4144	410	385 385	377	353 304	431 410	451 255	22	157	524	1 055		
27 0 36.2 40.1 30.4	25.9 7.728	410	383 313	303	262 200	385 415	385 374	37	385	477	1 155		
28 0 38.2 42.5 31.4	-19.1 -5.715	410	329 364	346	312 260	416 372	398 407	39	181	483	1 058		
29 0 39.6 44.8 32.1	-10.7 -3.280	410	335 367	343	311 264	406 398	351 372	42	382	469	1 007		
30 0 38.6 43.4 31.6	7.9 2.363	410	349 400	358	341 281	434 392	375 366	45	239	307	1 035		
31 0 33.6 36.5 29.3	52.8 1.5764	410	446 529	474	432 335	585 571	289 455	54	363	324	1 569		
32 0 42.2 48.2 33.5	-74.1 -2.2127	410	382 422	388	368 327	443 422	402 382	19	409	476	716		
33 0 36.7 40.8 30.6	40.9 1.2215	410	333 392	343	333 254	421 235	352 225	48	362	476	1 127		
34 0 38.6 43.4 31.6	-16.7 -5.001	410	327 369	327	310 259	395 386	352 352	45	344	454	997		
35 0 35.8 39.7 30.2	25.5 7.650	410	325 410	346	293 261	420 378	123 346	48	346	452	1 141		
36 0 36.3 40.4 30.5	-5.5 -1.631	410	406 467	416	386 335	487 396	426 173	42	163	305	982		
37 0 35.5 39.2 30.1	9.3 2.779	410	387 384	318	285 230	406 362	318 318	47	329	460	1 140		
38 0 37.2 41.3 30.9	-17.6 -5.264	410	334 390	343	315 259	409 343	334 324	45	324	456	1 039		
39 0 33.1 35.8 29.1	49.6 1.4818	410	293 382	323	263 159	397 308	293 278	50	278	442	1 408		
40 0 36.8 41.0 30.8	-46.6 -1.3977	410	329 387	348	299 241	407 358	319 319	46	319	446	1 091		
41 0 33.1 35.8 29.1	46.6 1.3977	410	292 397	307	247 143	357 277	292 277	51	262	472	1 446		
42 0 37.2 41.3 31.0	-49.6 -1.4818	410	393 460	402	364 307	469 412	393 374	23	374	488	660		
43 0 35.5 39.1 30.2	17.6 5.264	410	413 469	413	302 480	410 016	438 369	33	302	458	905		
44 0 42.2 48.1 33.6	-52.7 -1.5728	410	472 513	479	458 420	513 281	239 164	42	038	462	1 121		
45 0 36.0 39.8 30.4	47.5 1.4175	410	420 483	430	420 335	494 281	239 164	42	038	462	1 121		
46 0 36.7 40.8 30.8	-7.0 -2.166	410	418 478	418	408 318	478 388	298 128	54	398	482	1 128		
47 0 34.1 37.2 29.6	29.9 8.920	410	340 418	340	340 210	418 353	275 275	41	262	366	1 316		
48 0 36.5 40.5 30.7	-28.2 -8.435	410	378 439	368	368 267	429 216	368 358	49	114	389	1 141		
49 0 34.3 37.5 29.6	25.9 7.740	410	365 428	441	339 224	441 365	199 326	45	212	454	1 168		
50 0 37.4 41.7 31.1	-33.9 -1.0114	410	405 461	414	395 310	461 123	442 395	33	338	461	1 029		

(Table Continues)

Table 5H — Inferred Pressurant Distribution, Sealing Run 115: Test Configuration 3 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME TEMP (DEC C)		BETA BETA/TSTAR PRESSURANT FRACTION										
(SEC)	MEAN AIR PRESSURANT	HEWN I = 1										
VALVE FULLY CLOSED												
31.0	35.1	38.7	30.0	23.2	6916	410	322	392	322	311	207	392
32.0	33.6	36.5	29.3	20.9	6232	410	479	349	479	451	340	553
33.0	36.0	39.8	30.4	-30.4	-9033	410	348	411	338	337	352	422
34.0	34.9	38.4	29.5	11.8	3530	410	338	409	338	338	229	409
35.0	34.8	38.2	29.5	2.1	3641	410	330	390	318	318	186	330
36.0	35.8	39.6	30.3	-12.1	-3615	410	317	381	317	317	209	371
37.0	33.4	36.3	29.3	31.3	9326	410	304	403	318	304	190	375
38.0	36.7	40.8	30.8	-35.8	-11870	410	323	383	323	333	333	333
39.0	37.9	42.4	31.4	-11.1	-3302	410	376	421	376	376	303	412
40.0	35.3	38.9	30.1	25.6	7694	410	325	393	336	336	234	382
41.0	31.9	34.0	28.7	53.2	15870	410	361	434	361	361	212	484
42.0	37.2	41.5	32.0	-70.1	-20951	410	611	650	611	611	535	650
43.0	43.9	50.3	34.6	-45.3	-13543	410	588	619	588	594	530	607
44.0	40.1	45.4	32.5	22.9	6833	410	488	535	488	496	426	519
45.0	34.6	37.9	29.8	50.1	14956	410	415	477	403	415	304	465
46.0	35.8	39.6	30.4	-14.3	-4269	410	495	550	484	506	408	539
47.0	36.0	39.8	30.5	-1.9	-6556	410	521	575	511	521	425	554
48.0	35.6	39.3	30.3	3.8	1124	410	327	382	327	338	238	371
49.0	34.3	37.4	29.7	17.0	5064	410	463	527	463	476	373	515
50.0	35.8	39.6	30.4	-18.8	-5626	410	415	480	415	437	338	458
51.0	37.7	42.1	33.4	-18.4	-5501	410	473	519	473	482	408	510
52.0	34.1	37.2	29.6	59.1	11669	410	420	473	407	433	327	480
53.0	33.7	36.7	29.5	5.0	1493	410	451	520	451	479	368	506
54.0	33.7	36.7	29.5	0.0	0000	410	349	418	349	391	280	418
55.0	36.0	39.8	30.5	-27.9	-8335	410	490	544	490	523	447	544
56.0	35.3	38.8	30.2	7.7	2239	410	512	570	523	535	454	588
57.0	32.4	34.8	28.9	-2.0	-6595	410	484	529	484	495	427	518
58.0	33.1	35.7	29.2	45.0	13436	410	324	410	324	341	256	393
59.0	33.1	35.7	29.2	-12.6	-3775	410	475	551	475	490	413	536
60.0	38.6	43.2	31.8	-60.2	-17981	410	413	539	396	413	361	431
61.0	35.6	39.3	30.3	27.4	8174	410	535	579	524	535	468	568
62.0	33.9	37.0	29.5	21.7	6495	410	452	506	439	452	358	479
63.0	34.4	37.7	29.8	-7.2	-2146	410	381	431	368	393	305	431
64.0	34.8	38.1	29.9	-4.5	-1376	410	393	429	359	393	320	439
65.0	32.0	34.3	28.6	43.9	13119	410	302	357	284	321	194	337
66.0	32.0	34.3	28.8	0.0	0000	410	291	346	273	291	164	346
67.0	32.0	34.3	28.8	0.0	0000	410	326	380	326	326	217	399
68.0	35.8	39.5	30.4	-55.0	-16423	410	328	361	328	339	273	372
69.0	36.0	39.8	30.5	-1.9	-6536	410	348	359	338	338	273	381
70.0	36.0	39.8	30.5	0.0	0000	410	344	366	333	344	269	377
71.0	32.2	34.5	28.2	38.5	11489	410	315	345	300	315	208	361
72.0	32.2	34.5	28.2	16.1	4810	410	298	333	298	298	176	351
73.0	35.3	38.8	30.2	-46.4	-13890	410	374	409	374	386	305	409
74.0	35.6	39.3	30.3	-3.9	-1177	410	343	365	332	343	265	385
75.0	35.8	39.5	30.4	-1.9	-6568	410	343	376	332	343	266	385
76.0	33.9	37.0	29.5	23.6	7033	410	401	428	375	401	307	428
77.0	31.9	34.1	28.7	36.5	10912	410	301	338	263	301	170	338
78.0	33.7	36.7	29.5	-14.1	-10188	410	340	353	312	326	229	353
79.0	36.0	39.8	30.5	-27.9	-8335	410	421	442	399	410	334	442
80.0	33.2	36.0	29.3	35.7	10669	410	366	396	337	351	247	396

Table S1 — Inferred Pressurant Distribution, Scaling Run 116: Test Configuration 3

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME TEMP (SEC C)		BETA DETA/TSTAR PRESSURANT FRACTION										
(SEC) MEAN AIR PRESSURANT		MEAN I = 1										
		2	3	4	5	6	7	8	9	10	11	12
COMMENCE VALVE OPENING		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0 0 28 1 28 1 33 3	6 0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1 0 29 7 23 8 25 7	94 7 1.8119	0.019	0.133	0.316	0.438	0.316	0.095	0.045	-0.102	-0.397	-0.593	-1.2
VALVE FULLY OPEN		2	3	4	5	6	7	8	9	10	11	12
2 0 34 2 34 6 29 7	20 6 1.8295	0.00	0.028	0.130	0.953	0.151	0.295	-0.116	0.130	-0.568	-0.013	33
3 0 37 2 38 1 30 1	6 8 2.4866	0.113	0.087	0.030	0.695	0.055	0.193	-0.033	0.155	-0.221	0.118	31
4 0 40 1 42 0 30 1	10 3 5.908	0.162	0.109	0.109	0.488	0.067	0.193	0.075	0.227	-0.026	0.227	36
5 0 42 0 45 0 30 5	11 1 6.508	0.210	0.185	0.206	0.413	0.206	0.226	0.171	0.295	0.019	0.178	27
6 0 42 0 45 7 30 6	15 3 6.885	0.245	0.217	0.197	0.363	0.177	0.224	0.177	0.293	0.151	0.263	40
7 0 42 2 46 5 30 9	14 1 5.782	0.275	0.242	0.218	0.326	0.224	0.288	0.256	0.288	0.275	0.281	39
8 0 42 6 47 4 31 2	11 8 3.300	0.295	0.302	0.259	0.318	0.259	0.320	0.295	0.320	0.277	0.314	43
9 0 42 5 47 8 31 3	14 4 5.159	0.320	0.321	0.266	0.339	0.266	0.339	0.321	0.339	0.297	0.285	47
10 0 42 3 47 9 31 4	15 4 5.267	0.343	0.345	0.321	0.345	0.303	0.351	0.351	0.357	0.309	0.339	47
COMMENCE VALVE CLOSURE		2	3	4	5	6	7	8	9	10	11	12
11 0 42 1 48 1 31 6	14 8 4.775	0.364	0.375	0.326	0.369	0.333	0.375	0.357	0.368	0.345	0.363	49
12 0 42 0 48 1 32 1	24 3 4.688	0.382	0.350	0.340	0.371	0.334	0.384	0.384	0.403	0.328	0.390	52
VALVE FULLY CLOSED		2	3	4	5	6	7	8	9	10	11	12
13 0 41 6 47 6 32 4	18 7 3.619	0.393	0.407	0.341	0.374	0.361	0.407	0.401	0.388	0.355	0.394	54
14 0 43 0 49 4 33 1	-12 7 -2.480	0.393	0.391	0.367	0.373	0.373	0.404	0.379	0.379	0.385	0.391	50
15 0 43 0 49 4 33 1	0 0 0.0000	0.393	0.389	0.359	0.359	0.371	0.371	0.356	0.356	0.389	0.377	54
16 0 42 3 48 5 32 8	6 2 1.196	0.393	0.386	0.367	0.373	0.360	0.392	0.399	0.399	0.369	0.367	54
17 0 41 8 47 8 32 5	4 8 0.936	0.393	0.378	0.365	0.352	0.352	0.359	0.404	0.378	0.385	0.385	56
18 0 42 3 48 5 32 8	-4 8 -0.936	0.393	0.382	0.380	0.354	0.380	0.359	0.405	0.392	0.373	0.360	57
19 0 41 1 46 9 32 2	11 6 2.240	0.393	0.382	0.379	0.358	0.378	0.345	0.419	0.379	0.385	0.365	58
20 0 40 8 46 5 32 0	3 5 0.679	0.393	0.388	0.367	0.360	0.387	0.326	0.416	0.388	0.381	0.353	57
21 0 40 8 46 5 32 0	0 0 0.0000	0.393	0.390	0.383	0.376	0.369	0.342	0.425	0.411	0.397	0.383	59
22 0 41 5 47 4 32 3	-6 9 -1.340	0.393	0.369	0.369	0.349	0.336	0.336	0.402	0.399	0.369	0.376	56
23 0 40 6 46 2 31 9	9 7 1.686	0.393	0.373	0.380	0.359	0.343	0.324	0.401	0.380	0.380	0.373	59
24 0 40 2 45 8 31 7	3 7 0.748	0.393	0.385	0.379	0.365	0.350	0.322	0.400	0.378	0.386	0.365	58
25 0 40 4 46 0 31 8	-1 8 -0.357	0.393	0.366	0.380	0.359	0.332	0.322	0.401	0.379	0.387	0.359	59
26 0 40 2 45 8 31 7	1 9 0.362	0.393	0.358	0.387	0.358	0.344	0.322	0.401	0.379	0.394	0.358	58
27 0 40 1 45 3 31 6	1 9 0.362	0.393	0.374	0.367	0.338	0.317	0.317	0.410	0.382	0.389	0.353	59
28 0 39 9 45 3 31 6	1 9 0.367	0.393	0.369	0.378	0.364	0.334	0.313	0.414	0.385	0.393	0.356	59
29 0 40 2 45 8 31 7	-3 8 -0.723	0.393	0.386	0.379	0.365	0.343	0.308	0.415	0.386	0.386	0.358	60
30 0 39 2 44 4 31 2	11 7 2.232	0.393	0.348	0.378	0.370	0.332	0.294	0.424	0.401	0.378	0.355	61
31 0 39 5 44 8 31 4	-4 0 -0.774	0.393	0.377	0.387	0.379	0.342	0.298	0.432	0.394	0.372	0.350	60
32 0 39 9 45 3 31 6	-3 9 -0.751	0.393	0.373	0.388	0.380	0.351	0.300	0.439	0.395	0.380	0.366	61
33 0 39 2 44 4 31 2	7 9 1.524	0.393	0.385	0.410	0.418	0.385	0.319	0.471	0.355	0.359	0.403	57
34 0 43 0 49 4 33 1	-38 1 -7.371	0.393	0.446	0.453	0.453	0.416	0.379	0.502	0.434	0.342	0.459	42
35 0 38 7 43 7 31 0	44 2 8.548	0.393	0.373	0.373	0.388	0.333	0.278	0.444	0.388	0.357	0.444	394
36 0 39 4 44 6 31 3	-8 3 -1.597	0.393	0.361	0.399	0.399	0.339	0.286	0.429	0.394	0.354	0.354	62
37 0 38 3 43 2 30 8	12 6 2.415	0.393	0.359	0.399	0.399	0.343	0.278	0.432	0.393	0.343	0.351	65
38 0 39 9 45 3 31 6	-18 4 -3.565	0.393	0.417	0.454	0.446	0.403	0.337	0.483	0.391	0.403	0.403	62
39 0 38 2 43 0 30 7	20 7 3.593	0.393	0.383	0.410	0.396	0.387	0.273	0.428	0.379	0.347	0.347	64
40 0 38 7 43 7 31 0	-6 6 -1.269	0.393	0.378	0.410	0.394	0.382	0.275	0.425	0.378	0.346	0.346	62
41 0 38 9 43 9 31 1	-2 1 -0.049	0.393	0.387	0.426	0.426	0.372	0.294	0.442	0.366	0.364	0.364	65
42 0 38 7 43 7 31 0	2 1 0.049	0.393	0.385	0.413	0.397	0.349	0.278	0.413	0.373	0.342	0.357	65
43 0 38 9 43 9 31 1	-2 1 -0.049	0.393	0.387	0.414	0.391	0.360	0.282	0.414	0.373	0.344	0.352	64
44 0 38 0 42 7 30 7	10 9 2.115	0.393	0.410	0.460	0.435	0.401	0.319	0.460	0.418	0.401	0.393	71
45 0 40 2 45 8 31 7	-26 6 -5.150	0.393	0.433	0.449	0.427	0.399	0.320	0.436	0.399	0.399	0.392	52
46 0 37 8 42 5 30 6	28 9 5.590	0.393	0.433	0.487	0.470	0.437	0.344	0.504	0.437	0.426	0.434	256
47 0 42 0 48 1 32 6	-45 9 -8.874	0.393	0.417	0.449	0.430	0.411	0.346	0.449	0.415	0.391	0.398	64
48 0 38 3 43 2 30 8	39 3 7.556	0.393	0.368	0.408	0.392	0.368	0.287	0.408	0.368	0.352	0.365	65
49 0 38 7 43 7 31 0	-4 3 -0.839	0.393	0.374	0.413	0.390	0.366	0.295	0.413	0.366	0.358	0.350	65
50 0 38 3 43 2 30 8	4 3 0.839	0.393	0.373	0.421	0.389	0.373	0.292	0.413	0.356	0.348	0.348	64

(Table Continues)

Table S1 — Inferred Pressurant Distribution, Sealing Run 116: Test Configuration 3 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MINI																	
TIME TEMP. DEG C		BETA BETA/TSTAR PRESSURANT FRACTION															
(SEC)	MEAN AIR PRESSURANT	MEAN I = 1															
VALVE FULLY CLOSED																	
51.0	39.0	42.7	30.7	4.5	-0.860	393	372	414	389	364	289	405	356	347	65	331	439
52.0	38.2	43.0	30.7	-2.3	-0.430	393	373	414	389	365	291	398	365	348	65	332	447
53.0	38.3	43.2	30.8	-2.2	-0.430	393	441	473	449	441	376	473	433	417	368	61	028
54.0	38.0	42.7	30.7	4.5	-0.860	393	365	407	382	373	307	390	365	340	64	340	446
55.0	40.8	46.4	32.0	-32.0	-6.151	393	417	451	437	424	368	431	271	403	66	230	327
56.0	37.8	42.5	30.6	34.3	-6.629	393	358	408	383	374	316	391	349	341	66	349	433
57.0	37.5	42.0	30.4	4.7	-0.916	393	358	418	375	367	315	393	393	349	66	349	433
58.0	38.5	43.4	30.9	-13.7	-2.630	393	361	425	393	377	329	401	361	355	257	64	337
59.0	37.3	41.8	30.4	16.1	-3.119	393	360	413	378	378	316	395	351	350	65	334	430
60.0	37.8	42.5	30.6	-7.2	-1.386	393	368	439	416	416	366	442	131	408	65	374	484
61.0	38.0	42.7	30.7	-2.3	-0.446	393	355	405	380	371	322	388	363	353	65	338	306
62.0	37.3	41.8	30.4	9.5	-1.831	393	357	409	374	374	322	392	357	366	66	339	276
63.0	37.5	42.0	30.4	-2.4	-0.471	393	362	414	371	379	327	388	362	362	64	336	414
64.0	38.3	43.2	30.8	-11.5	-2.220	393	367	408	375	375	325	383	367	367	64	335	424
65.0	37.3	41.8	30.4	14.0	0.0000	393	360	404	378	378	323	395	369	369	64	334	421
66.0	37.3	41.8	30.4	0.0	0.0000	393	368	403	376	376	323	385	385	368	65	333	420
67.0	39.2	44.4	31.2	-24.5	-4.732	393	412	442	412	412	374	427	259	191	64	381	458
68.0	38.2	43.0	30.8	12.8	-2.475	393	373	466	373	381	322	390	365	373	62	340	414
69.0	37.1	41.5	30.3	14.2	-2.747	393	373	406	382	382	320	391	356	355	64	338	416
70.0	38.0	42.7	30.7	-12.0	-2.310	393	370	403	378	378	326	386	361	370	63	345	411
71.0	37.8	42.5	30.6	2.3	-0.446	393	373	406	373	373	326	381	364	354	63	347	423
72.0	36.9	41.1	30.1	9.7	-1.865	393	376	403	367	376	323	394	367	376	64	341	426
73.0	37.0	41.5	30.3	5.1	-0.980	393	379	407	370	379	315	388	361	361	64	343	416
74.0	37.6	42.2	30.5	-12.4	-2.399	393	376	402	376	376	325	385	376	368	64	342	410
75.0	37.8	42.5	30.6	-2.3	-0.493	393	374	406	374	374	323	383	374	366	63	349	406
76.0	37.6	42.2	30.5	2.3	-0.493	393	370	403	370	378	324	384	378	378	64	353	404
77.0	37.1	41.5	30.3	7.3	-1.412	393	367	402	367	375	340	375	375	358	65	349	411
78.0	36.6	40.8	30.0	7.7	-1.497	393	362	408	371	380	334	380	371	333	65	353	406
79.0	37.3	41.8	30.4	-10.2	-1.976	393	360	404	378	378	323	378	378	331	64	351	413
80.0	37.6	42.2	30.5	-4.8	-0.933	393	366	409	415	432	389	432	415	210	59	364	440
81.0	36.9	41.3	30.2	9.8	-1.901	393	372	408	381	390	345	390	372	331	67	337	300
82.0	36.6	40.8	30.0	5.2	-1.600	393	360	417	389	389	361	389	370	176	68	370	417
83.0	36.6	40.8	30.0	0.0	0.0000	393	367	404	376	385	348	385	367	339	67	371	404
84.0	37.3	41.8	30.4	-10.2	-1.976	393	370	405	378	387	352	387	378	370	65	371	413
85.0	38.5	43.4	30.9	-16.1	-3.119	393	369	393	369	385	353	377	377	345	62	361	409
86.0	37.3	41.8	30.4	16.1	-3.119	393	374	406	365	382	347	374	374	385	65	385	400
87.0	26.6	40.8	30.0	10.2	-1.976	393	373	401	373	383	345	383	373	336	67	337	401
88.0	26.6	40.8	30.0	0.0	0.0000	393	367	395	367	376	339	376	367	338	68	358	404
89.0	36.8	41.1	30.1	-2.6	-0.509	393	426	453	426	435	407	435	453	416	65	426	225
90.0	37.8	42.5	30.6	-14.8	-2.851	393	369	394	377	377	332	385	369	350	65	360	402
91.0	37.5	42.0	30.4	4.7	-0.916	393	359	394	360	377	342	377	377	331	65	359	394
92.0	37.5	42.0	30.4	0.0	0.0000	393	359	402	367	367	350	376	376	339	65	339	393
93.0	36.6	40.8	30.0	12.7	-2.446	393	385	422	385	394	366	394	403	366	69	236	403
94.0	38.0	42.7	30.7	-19.7	-3.801	393	410	444	410	419	402	419	460	150	70	402	427
95.0	39.0	44.1	31.2	-13.0	-2.516	393	423	464	441	441	425	440	348	253	71	217	209
96.0	36.6	40.8	30.0	32.6	-6.293	393	364	401	373	373	335	383	383	345	67	354	392
97.0	36.1	40.1	29.8	8.2	-1.592	393	355	434	415	415	336	425	405	075	73	405	337
98.0	37.1	41.5	30.3	-16.0	-3.086	393	417	404	426	426	399	435	426	044	71	417	433
99.0	40.2	45.8	31.7	-18.4	-7.424	393	373	388	373	373	339	381	373	366	60	346	395
100.0	37.1	41.5	30.3	30.4	-7.424	393	367	393	373	367	349	375	375	358	65	358	393

XXX

Table 6 — Mean Values of All Quantities, Test Configuration 3

TIME SEC	TIME INIT	TIME TMP.C	TIME TMP.C	TIME TMP.C	BETA	BETA/ Y.META	X BAR	1	2	3	4	5	6	7	8	9	10	11	12	13	TRG
0	0	25.6	25.6	10.2	161.8	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	9	27.5	27.6	24.2	161.8	2.1166	0.20	142	200	600	221	167	154	283	832	346	395	13	135	482	65
13	13	29.4	29.4	25.5	162.9	2.5421	0.39	127	144	588	187	218	201	367	775	232	312	14	198	521	10
17	17	31.0	31.4	26.3	162.9	1.0202	0.59	115	935	482	930	234	176	261	594	986	982	15	453	401	15
21	21	32.7	33.3	26.7	162.9	1.0899	0.79	994	016	407	008	238	134	218	234	986	931	16	000	284	20
25	25	34.0	34.9	26.7	162.9	1.7840	0.99	093	008	390	003	239	088	210	176	132	969	17	940	257	25
29	29	35.2	36.5	26.7	162.9	1.6440	1.18	095	003	368	009	217	041	210	073	187	100	18	078	257	30
33	33	36.2	37.5	26.6	162.9	1.7818	1.38	115	039	370	019	216	009	210	005	184	120	19	082	256	35
37	37	37.0	38.0	26.7	162.9	1.6090	1.58	139	067	377	052	224	051	212	046	195	136	20	111	249	40
41	41	37.8	40.1	27.0	162.9	1.7466	1.77	164	099	361	093	237	094	221	087	201	153	21	142	252	45
45	45	38.5	41.3	27.2	162.9	1.6666	1.97	191	114	299	136	253	135	239	135	215	174	22	130	258	50
49	49	39.2	42.4	27.5	162.9	1.5721	2.17	218	183	271	168	266	176	266	157	239	186	23	245	262	55
53	53	39.5	43.1	27.7	162.9	1.5818	2.37	233	182	331	183	270	193	274	157	255	189	24	248	281	60
57	57	39.7	43.8	27.9	162.9	1.5398	2.56	254	204	322	206	286	224	265	230	271	224	25	243	309	65
61	61	39.8	44.3	28.1	162.9	1.5176	2.76	270	221	346	229	304	253	279	257	292	251	26	264	331	70
65	65	39.9	44.8	28.3	162.9	1.5420	2.95	289	242	409	251	318	280	305	235	294	271	27	257	346	75
69	69	40.0	45.2	28.5	162.9	1.4968	3.15	316	289	326	278	342	310	335	308	314	296	28	333	367	80
73	73	39.8	45.4	28.7	162.9	1.5193	3.35	335	289	347	300	364	336	356	318	328	318	29	333	386	85
77	77	39.8	45.7	28.9	162.9	1.4792	3.55	351	320	379	330	379	359	374	340	359	346	30	337	401	90
81	81	39.7	46.0	29.3	162.9	1.4214	3.74	373	349	367	354	402	383	375	348	369	365	31	372	414	95
85	85	39.3	45.5	29.8	162.9	1.4355	3.94	398	370	382	377	429	408	376	311	359	390	32	356	444	100
89	89	39.2	45.3	29.8	162.9	1.4621	3.94	388	371	367	378	391	407	383	413	397	366	33	353	467	105
93	93	38.4	44.3	29.4	162.9	1.4662	3.94	382	370	360	378	374	412	413	407	386	378	34	400	461	110
97	97	38.2	44.0	29.3	162.9	1.4014	3.94	382	378	362	382	372	414	414	404	360	380	35	397	472	115
101	101	38.3	42.8	28.9	162.9	1.4088	3.94	389	388	369	388	372	426	398	399	399	401	36	404	406	120
105	105	36.9	42.8	28.7	162.9	1.2219	3.94	376	377	362	379	350	424	420	407	394	421	37	416	489	125
109	109	37.4	42.8	28.9	162.9	1.1508	3.94	377	381	368	377	353	421	413	402	367	382	38	417	469	130
113	113	37.5	41.6	28.6	162.9	1.0901	3.94	376	381	373	381	349	427	424	362	385	367	39	417	469	135
117	117	37.0	42.3	28.7	162.9	1.2786	3.94	368	380	366	376	340	419	414	396	399	387	40	426	492	140
121	121	36.5	41.7	28.5	162.9	1.1222	3.94	368	384	366	379	338	418	414	390	392	389	41	409	492	145
125	125	36.8	42.0	28.7	162.9	1.1346	3.94	375	398	374	386	337	433	428	431	360	377	42	416	496	150
129	129	36.3	41.4	28.5	162.9	1.2135	3.94	363	390	363	377	334	420	404	383	386	395	43	412	497	155
133	133	35.8	40.8	28.2	162.9	1.0638	3.94	366	399	368	377	337	422	411	368	383	402	44	409	502	160
137	137	35.8	40.6	28.2	162.9	1.0593	3.94	357	395	362	375	331	419	412	375	392	400	45	419	499	165
141	141	35.3	39.9	28.0	162.9	1.1531	3.94	358	401	367	378	327	421	400	352	390	401	46	420	526	170
145	145	35.5	40.3	28.2	162.9	1.1840	3.94	359	409	370	382	331	425	399	369	392	396	47	405	523	175
149	149	35.9	40.7	28.3	162.9	1.0294	3.94	374	416	380	392	343	426	389	370	373	374	48	409	502	180
153	153	35.2	39.9	28.1	162.9	1.2202	3.94	372	424	381	402	347	433	379	370	357	412	49	420	489	185
157	157	37.8	37.8	27.5	162.9	1.5277	3.94	366	434	366	404	334	444	396	359	347	420	50	372	517	190
161	161	34.5	38.8	27.8	162.9	1.3856	3.94	367	425	363	399	331	430	385	336	374	424	51	341	511	195
165	165	35.7	40.5	28.4	162.9	1.3836	3.94	375	426	378	397	336	429	344	375	385	416	52	408	496	200
169	169	34.9	39.3	28.0	162.9	1.1861	3.94	382	436	384	401	336	440	299	393	367	424	53	374	543	205
173	173	34.5	38.7	27.8	162.9	1.1223	3.94	373	433	374	404	333	437	346	373	386	433	54	373	509	210
177	177	35.0	39.4	28.1	162.9	1.1267	3.94	371	425	373	397	328	430	400	353	362	403	55	404	513	215
181	181	34.7	39.1	28.0	162.9	1.1261	3.94	372	424	368	400	331	426	358	379	380	421	56	396	504	220
185	185	34.0	38.1	27.6	162.9	1.3664	3.94	385	439	361	417	334	450	382	358	373	422	57	347	474	225
189	189	34.7	39.0	27.9	162.9	1.1004	3.94	389	430	379	411	340	443	339	362	351	411	58	341	506	230
193	193	34.1	38.9	28.7	162.9	1.2213	3.94	386	435	394	419	359	444	346	393	341	434	59	371	461	235
197	197	34.5	40.8	28.9	162.9	1.1615	3.94	385	430	383	406	342	438	386	394	375	386	60	341	461	240
201	201	34.1	38.2	27.7	162.9	1.0814	3.94	391	435	386	413	347	442	341	395	361	403	61	427	446	245

Table 7 — Normalized Mean Local Pressurant Fractions, Test Configuration 3

NORMALIZED MEAN LOCAL PRESSURANT FRACTIONS													
LOCATIONS 1													
1	2	3	4	5	6	7	8	9	10	11	12	13	TAU
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
361	509	1.522	688	423	350	734-2.085	-878	-775	-337	-342	1.222	05	
322	313	1.452	474	556	509	768-1.838	-568	-544	-190	-277	1.319	10	
292	089	1.223	204	644	447	661-1.278	-136	-208	025	-134	1.017	15	
239	042	1.032	021	655	340	553-1.743	-743	218	079	209	001	720	20
236	-019	999	-006	608	-223	534-4.466	334	176	312	102	653	25	
242	007	933	-022	532	-104	540-1.085	424	254	408	198	652	30	
292	098	938	048	548	022	534-0.14	467	305	442	234	633	35	
353	170	935	131	567	131	539-1.116	493	346	483	281	632	40	
417	250	915	239	601	237	562-2.20	509	387	518	361	639	45	
484	339	759	146	643	343	606	316	546	441	566	458	54	50
554	414	689	427	676	447	674	398	608	472	613	520	664	55
592	462	839	464	684	494	696	499	648	478	678	534	714	60
644	519	816	524	727	568	674	584	689	569	737	617	784	65
686	562	877	582	771	642	709	652	716	636	760	669	838	70
733	615	1.037	636	806	711	774	597	745	689	779	651	878	75
801	682	846	707	867	786	851	782	737	750	853	768	931	80
849	733	881	762	923	852	904	806	832	808	902	820	979	85
891	811	880	837	961	910	940	862	910	878	938	856	1.019	90
953	886	930	898	1.021	971	952	882	936	927	994	944	1.052	95
1.010	940	969	957	1.089	1.035	955	940	1.012	991	996	979	1.127	1.00
984	941	931	960	992	1.034	971	1.048	1.008	928	1.040	1.016	1.143	1.05
969	940	915	959	949	1.046	1.047	1.034	979	959	1.022	1.013	1.166	1.10
969	959	923	970	943	1.050	1.026	914	964	1.028	1.008	1.197	1.15	
987	984	916	984	943	1.080	1.011	1.013	1.012	1.017	977	1.023	1.030	1.20
954	958	919	961	889	1.076	1.067	1.033	935	816	1.033	1.034	1.241	1.25
956	968	934	956	895	1.069	1.047	1.019	930	969	1.010	1.038	1.191	1.30
955	967	947	967	884	1.083	1.075	918	978	931	958	1.081	1.235	1.35
923	964	920	953	863	1.064	1.051	1.005	1.013	982	964	1.068	1.209	1.40
933	974	929	961	837	1.080	1.050	931	994	988	975	1.035	1.250	1.45
952	1.010	930	980	881	1.099	1.089	840	913	937	1.014	1.035	1.263	1.50
920	989	920	937	847	1.066	1.026	977	900	1.002	987	1.068	1.261	1.55
928	1.013	914	956	855	1.071	1.042	923	972	1.020	969	1.043	1.261	1.60
906	1.002	919	952	839	1.063	1.046	931	953	1.015	983	1.062	1.266	1.65
909	1.018	932	958	831	1.087	1.016	893	931	1.017	963	1.066	1.340	1.70
912	1.037	938	969	840	1.080	1.013	926	994	1.005	922	1.027	1.327	1.75
948	1.056	965	995	870	1.082	908	938	946	948	952	1.039	1.274	1.80
943	1.073	967	1.021	879	1.098	961	938	905	1.045	865	1.063	1.240	1.85
929	1.101	939	1.025	847	1.126	1.005	912	881	1.067	922	943	1.312	1.90
931	1.079	921	1.013	841	1.091	977	904	948	1.075	885	1.042	1.293	1.95
952	1.080	939	1.007	853	1.089	873	932	976	1.034	901	1.036	1.264	2.00
969	1.106	975	1.017	853	1.116	759	972	931	1.075	901	948	1.378	2.05
947	1.098	948	1.026	845	1.110	877	948	948	1.098	886	946	1.291	2.10
941	1.079	946	1.008	833	1.090	1.015	896	919	1.022	921	1.044	1.303	2.15
943	1.073	935	1.014	840	1.082	908	961	963	1.068	926	1.003	1.279	2.20
976	1.089	915	1.050	847	1.141	969	909	946	1.070	845	1.034	1.202	2.25
986	1.092	962	1.044	862	1.125	860	919	891	1.043	885	1.041	1.288	2.30
1.005	1.104	999	1.062	912	1.126	879	971	866	1.102	865	941	1.170	2.35
978	1.091	972	1.030	968	1.116	963	1.001	956	981	791	1.024	1.239	2.40
993	1.103	980	1.047	981	1.122	865	1.002	916	1.023	847	1.002	1.137	2.45

Table 8 — Standard Deviation of Mean Local Pressurant Fractions, Test Configuration 3

STANDARD DEVIATION OF MEAN LOCAL PRESSURANT FRACTIONS													
LOCATIONS 1													
1	2	3	4	5	6	7	8	9	10	11	12	13	14
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
673	792	1543	894	603	1254	781	1893	946	917	666	647	1796	05
564	710	1074	716	487	961	575	1311	739	751	538	621	2171	10
419	540	810	529	351	622	396	825	522	560	393	517	1590	15
303	444	913	407	244	308	250	635	311	421	299	430	1019	20
206	231	814	192	157	162	150	432	161	303	153	283	812	25
176	075	715	086	158	116	124	282	056	234	117	178	694	30
131	074	741	076	141	091	104	212	094	230	125	198	583	35
113	081	822	075	145	053	096	165	089	222	110	215	487	40
103	076	746	064	143	089	088	149	073	180	078	171	394	45
089	062	420	036	118	069	078	148	058	124	052	107	283	50
069	051	290	048	104	048	041	153	053	131	060	101	165	55
061	036	317	037	090	039	051	091	043	243	054	080	215	60
047	036	211	041	086	035	189	055	040	202	038	051	319	65
033	033	336	034	059	042	146	069	047	141	064	058	381	70
046	060	713	058	051	046	116	091	070	166	142	200	356	75
048	033	016	042	070	066	052	044	043	128	054	066	357	80
049	030	089	033	070	065	032	083	030	128	029	045	354	85
052	037	037	033	058	068	043	065	033	126	043	071	309	90
036	047	048	038	059	059	113	131	081	133	061	031	251	95
043	059	044	044	073	070	199	217	045	146	116	050	357	100
040	043	071	032	060	054	178	050	043	179	034	035	416	105
038	042	041	052	069	103	031	060	050	158	052	030	517	110
046	027	070	046	055	087	047	054	141	177	041	031	486	115
063	045	076	043	066	106	132	067	057	177	116	094	209	120
053	037	101	060	076	122	062	052	063	456	044	088	554	125
047	030	083	060	070	086	087	051	145	185	033	053	370	130
036	034	061	062	075	077	076	328	129	233	203	116	509	135
053	034	069	088	096	087	069	060	053	193	164	093	559	140
050	030	074	098	090	105	059	059	068	203	108	092	485	145
061	076	082	080	060	120	079	277	203	213	054	093	501	150
064	047	080	104	098	098	106	061	109	218	057	093	516	155
064	063	067	105	094	092	061	142	113	214	103	089	536	160
073	058	080	122	114	105	083	077	094	222	079	102	565	165
095	062	083	145	165	110	099	173	109	204	102	113	781	170
109	076	098	154	171	138	117	100	111	161	138	130	805	175
067	071	070	103	087	104	133	064	108	351	070	123	552	180
095	087	104	122	083	133	191	101	157	224	277	108	501	185
090	096	123	145	089	175	062	137	186	230	053	256	640	190
069	070	086	131	111	144	110	091	075	206	183	092	580	195
072	053	088	105	097	116	339	084	046	219	092	102	512	200
110	107	097	111	095	156	723	126	122	213	092	273	820	205
107	076	107	120	125	148	344	097	059	240	139	213	586	210
123	093	109	122	132	133	091	212	133	105	082	126	608	215
094	080	089	124	122	140	222	088	072	220	067	112	586	220
104	147	113	220	131	308	132	183	068	251	212	102	411	225
095	130	081	134	092	188	383	112	219	229	129	069	643	230
167	166	158	172	155	150	342	125	231	253	201	283	229	235
089	092	075	094	079	130	150	092	080	279	269	063	471	240
148	145	124	138	098	176	275	112	154	229	243	092	142	245

Table 9 — Deviations of Mean Local Pressurant Fractions, Test Configuration 3

DEVIATIONS OF MEAN LOCAL PRESSURANT FRACTIONS																
LOCATIONS 1																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.310	0.438	1.471	0.337	0.441	0.884	2.135	0.928	0.825	0.387	0.352	1.172	0.05				
0.222	0.215	1.392	0.374	0.456	0.609	1.938	0.668	0.643	0.290	0.377	1.219	0.10				
0.142	0.061	1.073	0.54	0.494	0.597	1.420	0.511	0.420	0.266	0.357	1.250	0.264				
0.039	0.242	0.833	0.179	0.435	0.540	0.353	0.945	0.18	0.121	0.09	0.199	0.199				
0.014	0.270	0.738	0.257	0.357	0.474	0.203	0.856	0.084	0.075	0.062	0.148	0.402	0.25			
0.058	0.293	0.733	0.322	0.251	0.404	0.240	0.485	0.124	0.046	0.108	0.101	0.352	0.30			
0.059	0.253	0.587	0.303	0.197	0.329	0.183	0.365	0.117	0.045	0.091	0.116	0.282	0.35			
0.047	0.230	0.536	0.269	0.167	0.269	0.139	0.283	0.095	0.054	0.083	0.119	0.232	0.40			
0.034	0.204	0.485	0.215	0.151	0.213	0.111	0.230	0.059	0.063	0.067	0.089	0.188	0.45			
0.016	0.161	0.239	0.154	0.143	0.156	0.106	0.184	0.046	0.039	0.066	0.042	0.154	0.50			
0.004	0.136	0.139	0.123	0.126	0.103	0.096	0.108	0.038	0.038	0.038	0.038	0.134	0.55			
0.008	0.138	0.239	0.136	0.084	0.06	0.06	0.101	0.048	0.122	0.078	0.046	0.113	0.60			
0.005	0.131	0.127	0.126	0.078	0.02	0.024	0.066	0.039	0.080	0.087	0.031	0.135	0.65			
0.014	0.138	0.178	0.110	0.071	0.057	0.010	0.047	0.017	0.063	0.061	0.031	0.139	0.70			
0.016	0.134	0.288	0.113	0.056	0.039	0.025	0.032	0.004	0.061	0.030	0.038	0.129	0.75			
0.001	0.118	0.026	0.094	0.067	0.014	0.030	0.018	0.003	0.050	0.033	0.032	0.131	0.80			
0.001	0.118	0.031	0.089	0.073	0.01	0.034	0.044	0.018	0.043	0.052	0.030	0.129	0.85			
0.009	0.089	0.020	0.063	0.061	0.010	0.048	0.038	0.010	0.022	0.038	0.044	0.119	0.90			
0.003	0.063	0.019	0.051	0.071	0.022	0.003	0.068	0.013	0.023	0.044	0.066	0.102	0.95			
0.010	0.060	0.031	0.043	0.089	0.035	0.045	0.060	0.012	0.009	0.004	0.021	0.127	1.00			
0.016	0.059	0.069	0.040	0.088	0.034	0.029	0.060	0.008	0.072	0.040	0.016	0.145	1.05			
0.031	0.060	0.085	0.041	0.031	0.046	0.047	0.034	0.021	0.041	0.022	0.013	0.166	1.10			
0.031	0.041	0.077	0.030	0.057	0.050	0.050	0.026	0.066	0.036	0.028	0.008	0.197	1.15			
0.013	0.016	0.064	0.016	0.037	0.080	0.111	0.013	0.012	0.017	0.023	0.025	0.300	1.20			
0.046	0.042	0.081	0.039	0.111	0.076	0.067	0.033	0.001	0.184	0.033	0.034	0.241	1.25			
0.044	0.032	0.066	0.044	0.105	0.09	0.047	0.019	0.070	0.31	0.10	0.08	0.191	1.30			
0.045	0.033	0.033	0.033	0.116	0.083	0.075	0.082	0.022	0.069	0.042	0.01	0.255	1.35			
0.067	0.036	0.070	0.047	0.137	0.064	0.051	0.005	0.013	0.018	0.036	0.08	0.209	1.40			
0.067	0.026	0.071	0.039	0.143	0.060	0.050	0.009	0.006	0.012	0.025	0.025	0.250	1.45			
0.048	0.010	0.050	0.020	0.119	0.099	0.085	0.160	0.007	0.043	0.014	0.05	0.263	1.50			
0.080	0.011	0.080	0.043	0.153	0.066	0.026	0.023	0.020	0.02	0.013	0.08	0.261	1.55			
0.072	0.013	0.066	0.044	0.145	0.071	0.042	0.067	0.028	0.020	0.031	0.05	0.261	1.60			
0.094	0.002	0.081	0.048	0.161	0.083	0.046	0.049	0.005	0.015	0.017	0.02	0.266	1.65			
0.091	0.018	0.068	0.042	0.169	0.067	0.016	0.107	0.009	0.017	0.037	0.066	0.340	1.70			
0.088	0.037	0.062	0.031	0.160	0.080	0.013	0.064	0.006	0.005	0.078	0.027	0.327	1.75			
0.052	0.056	0.035	0.005	0.130	0.082	0.012	0.062	0.054	0.052	0.048	0.09	0.274	1.80			
0.057	0.075	0.033	0.021	0.121	0.098	0.039	0.062	0.053	0.045	0.135	0.05	0.240	1.85			
0.071	0.101	0.071	0.025	0.153	0.126	0.005	0.088	0.119	0.067	0.078	0.037	0.312	1.90			
0.069	0.079	0.079	0.013	0.159	0.091	0.023	0.056	0.052	0.075	0.115	0.02	0.293	1.95			
0.048	0.080	0.041	0.007	0.147	0.089	0.127	0.048	0.024	0.054	0.099	0.036	0.264	2.00			
0.031	0.06	0.025	0.017	0.147	0.116	0.241	0.028	0.005	0.075	0.099	0.02	0.278	2.05			
0.053	0.098	0.032	0.026	0.155	0.110	0.123	0.032	0.022	0.098	0.114	0.034	0.291	2.10			
0.059	0.079	0.054	0.008	0.167	0.090	0.015	0.104	0.001	0.022	0.079	0.04	0.303	2.15			
0.057	0.073	0.055	0.014	0.160	0.082	0.092	0.039	0.037	0.068	0.074	0.05	0.279	2.20			
0.024	0.089	0.085	0.030	0.153	0.141	0.031	0.091	0.054	0.070	0.155	0.04	0.202	2.25			
0.014	0.092	0.038	0.044	0.138	0.125	0.140	0.081	0.109	0.043	0.115	0.01	0.288	2.30			
0.005	0.104	0.001	0.062	0.088	0.126	0.121	0.029	0.134	0.102	0.135	0.039	0.170	2.35			
0.022	0.091	0.028	0.030	0.132	0.110	0.037	0.001	0.050	0.019	0.209	0.04	0.239	2.40			
0.007	0.103	0.020	0.047	0.119	0.122	0.135	0.002	0.004	0.023	0.153	0.02	0.137	2.45			

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Table 10A — Sealing Run 200, Test Configuration 1: One 1.52 cm Nozzle

S C METER CHAMBER OBSTRUCTED GAS MIXING RUN 200										COORDINATES									
PRESSURANT FILL- THERMOCOUPLES																			
FOU - TOTAL TANK LOCATION 1																			
TIME P T P T (SEC)(HMP)(DEG K) (BAR)																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	1	0.249	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	2	0.249	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	3	0.249	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	4	0.102	0.0	0.076			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	5	0.076	0.0	0.076			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	6	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	7	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	8	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	9	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	10	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	11	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	12	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	13	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	14	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	15	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	16	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	17	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	18	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	19	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	20	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	21	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	22	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	23	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	24	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	25	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	26	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	27	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	28	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	29	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	30	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	31	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	32	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	33	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	34	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	35	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	36	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	37	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	38	0.152	0.0	0.152			
304.2	304.0	304.0	304.0	303.6	304.2	302.2	303.6	302.2	304.8	303.5	302.9	302.7	39	0.152	0.0	0.152			

(Table continues)

Table 10A — Sealing Run 200, Test Configuration 1: One 1.52 cm Nozzle (Continued)

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107															
PRESSURANT FILL- FOR - TOTAL		THERMOCOUPLES LOCATION 1		TANK		P		T		T		T		T	
TIME (SEC)	P (BAR)	1	2	3	4	5	6	7	8	9	10	11	12	13	
40	311.3	311.0	311.2	310.6	311.1	310.5	310.5	309.9	310.3	310.1	310.2	310.0
41	...	1.764	...	311.1	311.3	311.0	310.6	310.9	309.6	310.0	309.4	311.5	310.2	309.6	310.4
42	...	1.764	...	311.0	310.7	311.1	310.9	310.4	310.8	309.7	309.3	309.7	309.6	309.5	309.3
43	...	1.740	...	310.9	310.7	311.0	310.9	310.4	310.7	309.2	308.9	309.4	309.3	308.6	309.1
48	...	1.765	...	310.2	310.0	310.3	310.2	310.0	308.5	308.4	308.1	308.8	308.6	307.8	308.5
53	...	1.738	...	309.8	309.5	309.8	309.6	309.6	309.7	308.2	307.5	307.8	307.9	307.5	307.1
58	...	1.755	...	309.5	308.8	309.4	309.4	309.3	309.3	307.6	307.0	307.3	307.5	307.0	307.5
63	...	1.740	...	309.3	308.4	309.0	309.0	308.8	307.1	307.6	307.0	307.5	307.8	307.0	307.2
68	...	1.753	...	308.9	308.0	308.6	308.6	308.7	307.3	307.3	306.6	306.6	307.1	306.4	306.6
73	...	1.747	...	308.7	307.8	308.3	308.2	308.4	306.2	306.3	306.7	306.3	306.4	307.5	306.2
78	...	1.768	...	308.4	307.5	308.2	308.0	308.1	306.1	306.3	305.9	306.2	306.5	305.7	305.9
83	...	1.771	...	308.2	307.5	308.0	307.8	308.0	305.5	306.8	305.9	307.2	306.4	306.0	305.8
88	...	1.734	...	308.1	307.4	307.9	307.7	307.9	307.9	305.7	305.9	305.8	306.2	306.1	305.5
93	...	1.738	...	307.9	307.3	307.7	307.5	307.8	307.6	305.9	307.3	305.8	306.1	305.2	305.7
103	...	1.755	...	307.6	307.0	307.4	307.2	307.6	307.4	305.7	305.7	305.3	305.9	305.2	305.5
113	...	1.758	...	307.4	306.9	307.3	307.0	307.4	307.3	305.4	305.7	305.3	305.9	305.2	305.5
123	...	1.755	...	307.2	306.7	307.1	306.8	307.1	307.1	305.2	305.2	305.1	305.7	305.0	305.3
133	...	1.733	...	307.0	306.6	307.0	306.6	307.1	307.0	304.9	305.2	305.0	305.5	305.8	305.2
143	...	1.745	...	306.8	306.6	306.8	306.5	307.3	306.9	304.9	305.1	305.0	305.4	305.9	304.8
153	...	1.764	...	306.8	306.4	306.8	306.5	307.2	306.9	304.8	304.9	304.7	305.3	305.0	304.7
163	...	1.759	...	306.7	306.4	306.8	306.4	307.0	306.8	304.9	305.2	304.8	305.6	305.1	304.9
173	...	1.759	...	306.6	306.3	306.6	306.2	307.1	306.8	304.8	304.9	304.8	305.5	305.1	304.9
183	...	1.757	...	306.6	306.2	306.6	306.2	307.1	306.8	304.5	304.7	304.5	305.2	304.6	304.5
193	...	1.732	...	306.6	306.2	306.6	306.1	307.1	306.7	304.4	304.8	304.6	305.2	304.9	304.6
203	...	1.764	...	306.5	306.2	306.6	306.0	306.9	306.6	304.5	304.5	304.5	305.3	304.8	304.5
213	...	1.741	...	306.4	306.1	306.6	306.0	306.9	306.6	304.5	304.8	305.2	305.3	304.8	304.5
223	...	1.769	...	306.4	306.1	306.6	306.0	306.9	306.6	304.5	304.7	304.5	305.3	304.8	304.5
233	...	1.737	...	306.4	306.0	306.6	306.0	306.9	306.6	304.3	304.5	304.5	305.0	304.5	304.4
243	...	1.734	...	306.3	305.9	306.6	306.0	306.9	306.6	304.2	304.5	304.5	305.0	304.5	304.4
253	...	1.761	...	306.3	305.9	306.6	306.0	306.9	306.6	304.2	304.5	304.5	305.0	304.5	304.4
263	...	1.741	...	306.2	305.9	306.4	305.8	306.7	306.6	304.2	304.6	304.5	305.1	304.5	304.4
273	...	1.751	...	306.2	305.9	306.4	305.8	306.6	306.6	304.4	304.5	304.9	305.2	304.5	304.5
283	...	1.735	...	306.2	305.9	306.4	305.8	306.6	306.6	304.1	304.5	304.4	305.0	304.3	304.4

Table 10B -- Scaling Run 201, Test Configuration 1: One 1.52 cm Nozzle

S C METER CHAMBER OBSTRUCTED GAS MIXING RUN 201																
PRESSURANT FILL- THERMOCOUPLES																
FOU - TOTAL. TANK																
LOCATION 1																
T (DEC K)																
TIME (SEC)	BAR	(DEC K)	(BAR)	1	2	3	4	5	6	7	8	9	10	11	12	13
-5	1.056	304.5	304.4	304.4	304.4	304.4	304.5	304.0	304.5	302.7	302.9	302.5	303.4	303.0	302.6	302.7
-4	1.053	304.5	304.4	304.4	304.4	304.4	304.5	304.0	304.5	302.7	302.9	302.5	303.4	303.0	302.6	302.7
-3	1.051	304.5	304.4	304.4	304.4	304.4	304.5	304.0	304.5	302.7	302.9	302.5	303.4	303.0	302.6	302.7
-2	1.073	304.5	304.4	304.4	304.4	304.4	304.5	304.0	304.5	302.7	302.9	302.5	303.4	303.0	302.6	302.7
-1	1.037	304.5	304.4	304.4	304.4	304.4	304.5	304.0	304.5	302.7	302.9	302.5	303.4	303.0	302.6	302.7
0	1.034	304.5	304.4	304.4	304.4	304.4	304.5	304.0	304.5	302.7	302.9	302.5	303.4	303.0	302.6	302.7
1	1.073	304.5	304.4	304.4	304.4	304.4	304.5	304.0	304.5	302.7	302.9	302.5	303.4	303.0	302.6	302.7
2	1.073	304.5	304.4	304.4	304.4	304.4	304.5	304.0	304.5	302.7	302.9	302.5	303.4	303.0	302.6	302.7
3	1.101	308.0	307.9	307.9	307.9	307.9	307.9	307.9	307.9	307.9	307.9	307.9	307.9	307.9	307.9	307.9
4	1.128	309.3	309.0	307.0	309.1	308.1	309.5	307.6	309.2	307.4	308.3	308.3	307.9	307.9	307.8	307.8
5	1.187	310.5	310.4	308.8	310.4	309.6	310.7	309.1	310.2	308.7	309.5	309.5	309.5	309.3	309.3	309.3
6	1.172	311.5	311.5	310.2	311.5	310.7	311.7	309.7	310.9	309.3	310.2	310.2	310.2	310.0	310.0	310.0
7	1.215	312.1	312.1	310.9	312.2	311.1	312.2	310.5	311.4	310.0	311.0	310.8	310.9	310.9	310.7	310.7
8	1.249	312.5	312.7	311.7	312.8	311.8	312.6	311.1	311.6	310.7	311.5	311.3	311.4	311.3	311.3	311.3
9	1.260	312.8	313.0	312.2	313.1	312.2	312.8	311.4	311.8	311.1	311.9	311.5	311.5	311.5	311.6	311.6
10	1.311	313.0	313.2	312.5	313.3	312.4	313.0	311.6	312.2	311.4	312.0	311.8	311.9	311.9	311.9	311.9
11	1.286	313.2	313.4	312.9	313.5	312.3	313.2	311.7	312.2	311.6	312.2	312.0	312.0	312.0	312.0	312.0
12	1.339	313.4	313.5	313.2	313.5	312.2	313.2	311.9	312.2	311.7	312.3	312.3	312.0	312.0	312.0	312.0
13	1.358	313.3	313.5	313.3	313.6	312.2	313.3	312.0	312.2	312.0	312.8	312.2	312.0	312.0	312.0	312.0
14	1.374	313.3	313.6	313.6	313.6	312.2	313.3	312.1	312.2	311.8	312.4	312.2	312.0	312.0	312.0	312.0
15	1.416	313.3	313.6	313.7	313.6	312.3	313.2	312.0	311.9	311.7	312.4	312.0	311.9	312.0	312.0	312.0
16	1.400	313.2	313.5	313.6	313.4	312.0	313.1	311.9	312.2	311.7	312.3	312.3	312.0	312.0	312.0	312.0
17	1.442	313.3	313.5	313.4	313.6	311.9	313.1	312.0	312.1	311.8	312.3	312.3	312.0	312.0	312.0	312.0
18	1.476	313.3	313.4	313.4	313.4	311.9	313.1	312.0	311.9	311.9	312.3	312.3	311.9	311.9	311.9	311.9
19	1.473	313.2	313.4	313.4	313.4	312.0	313.1	311.9	312.0	311.9	312.3	312.3	311.8	312.0	312.0	312.0
20	1.489	313.2	313.4	313.4	313.4	311.9	312.9	311.9	312.0	311.7	312.2	312.2	311.7	312.0	312.0	312.0
21	1.482	313.1	313.3	313.4	313.4	311.8	312.9	311.9	311.8	311.7	312.2	312.2	311.8	312.0	312.0	312.0
22	1.534	313.1	313.2	313.2	313.3	311.8	312.8	311.7	311.9	311.7	312.2	312.2	311.8	312.0	312.0	312.0
23	1.548	313.0	313.1	313.1	313.2	311.6	312.7	311.6	311.7	311.6	312.0	311.9	311.6	311.7	312.0	312.0
24	1.579	313.0	313.1	313.1	313.2	311.7	312.6	312.7	311.7	311.6	312.0	312.2	311.7	312.0	312.0	312.0
25	1.594	312.9	313.0	312.9	313.1	311.5	312.6	311.6	311.7	311.5	311.7	311.8	311.6	311.6	311.6	311.6
26	1.613	312.7	312.9	312.9	312.9	311.5	312.6	311.6	311.6	311.5	311.9	311.7	311.5	311.6	311.6	311.6
27	1.631	312.8	312.9	312.9	312.9	311.5	312.6	311.6	311.6	311.4	311.9	311.6	311.3	311.6	311.6	311.6
28	1.622	312.7	312.9	312.9	312.9	311.5	312.5	311.5	311.5	311.2	311.7	311.6	311.3	311.6	311.6	311.6
29	1.659	312.6	312.8	312.8	312.8	311.5	312.4	311.4	311.4	311.3	311.7	311.6	311.4	311.5	311.5	311.5
30	1.668	312.6	312.8	312.8	312.8	311.5	312.3	311.3	311.3	311.1	311.7	311.6	311.2	311.3	311.3	311.3
31	1.706	312.5	312.7	312.7	312.7	311.4	312.4	311.3	311.3	311.2	311.6	311.6	311.1	311.3	311.3	311.3
32	1.721	312.4	312.6	312.6	312.6	311.3	312.3	311.2	311.3	311.2	311.5	311.5	311.3	311.3	311.3	311.3
33	1.731	312.3	312.4	312.4	312.4	311.1	312.3	311.2	311.1	311.0	311.5	311.4	311.1	311.3	311.3	311.3
34	1.742	312.4	312.5	312.5	312.5	311.2	312.3	311.1	311.2	310.9	311.5	311.3	311.0	311.2	311.2	311.2
35	1.764	312.3	312.4	312.4	312.4	311.2	312.3	311.1	311.1	310.8	311.3	311.3	311.1	311.1	311.1	311.1
36	1.767	312.3	312.3	312.3	312.4	311.0	312.1	311.0	310.7	310.5	310.4	310.9	310.8	310.4	310.7	310.7
37	1.758	312.1	312.0	312.0	312.1	311.2	311.0	310.7	310.5	310.4	310.9	310.8	310.4	310.7	310.7	310.7
38	1.763	311.8	311.7	312.2	311.8	311.1	311.5	310.2	310.3	310.3	310.6	310.5	310.3	310.2	310.3	310.2
39	1.778	311.7	311.6	311.9	311.7	311.0	311.4	310.6	310.2	310.0	310.5	310.2	310.0	310.2	310.2	310.2

(Table continues)

Table 10B — Scaling Run 201, Test Configuration 1: One 1.52 cm Nozzle (Continued)

S C WATER CHAMBER OBSTRUCTED GAS MIXING RUN 107														
TIME (SEC)	PRESSURE		FILL- TANK		THERMOCOUPLES LOCATION 1									
	P	T	P	T	T (DEG K)	1	2	3	4	5	6	7	8	9
40	000	000	000	000	311.5	311.4	311.7	311.6	311.0	311.1	309.8	310.1	310.0	311.1
41	000	000	000	000	1.745	311.3	311.1	311.5	312.3	310.9	310.9	309.6	309.8	309.7
42	000	000	000	000	1.762	311.2	311.0	311.4	311.1	310.6	310.9	309.5	309.7	309.5
43	000	000	000	000	1.754	311.1	310.9	311.2	311.1	310.6	310.9	309.6	309.4	309.3
44	000	000	000	000	1.781	311.0	310.8	311.1	311.0	310.6	310.7	309.3	309.4	309.3
45	000	000	000	000	1.763	310.4	310.1	310.4	310.3	310.2	310.1	308.7	308.8	308.6
46	000	000	000	000	1.742	310.6	309.7	309.9	310.0	309.8	309.7	308.1	308.4	307.7
47	000	000	000	000	1.741	309.6	309.4	309.5	309.6	309.4	309.1	307.9	308.1	308.4
48	000	000	000	000	1.740	309.4	308.9	309.3	309.3	309.4	309.1	307.5	307.6	307.4
49	000	000	000	000	1.745	309.2	308.5	308.9	308.9	309.1	308.8	307.0	307.3	307.0
50	000	000	000	000	1.762	308.8	308.2	308.5	308.7	308.8	308.5	306.7	306.8	306.6
51	000	000	000	000	1.772	308.5	308.0	308.3	308.4	308.2	308.2	306.6	306.5	306.6
52	000	000	000	000	1.745	308.3	307.8	308.1	308.1	308.2	308.2	306.4	306.4	306.7
53	000	000	000	000	1.741	308.2	307.7	308.0	308.0	308.1	308.1	306.1	306.2	306.6
54	000	000	000	000	1.756	308.2	307.8	308.0	308.0	308.1	308.1	306.1	306.2	306.6
55	000	000	000	000	1.759	308.0	307.5	307.9	307.8	308.1	308.0	305.9	306.1	305.9
56	000	000	000	000	1.757	307.6	307.3	307.6	307.4	307.9	307.6	305.7	305.8	305.7
57	000	000	000	000	1.747	307.5	307.1	307.5	307.2	307.9	307.5	305.5	305.7	305.4
58	000	000	000	000	1.746	307.3	307.0	307.3	307.0	307.7	307.3	305.3	305.5	305.3
59	000	000	000	000	1.773	307.2	306.8	307.1	306.8	307.6	307.3	305.3	305.3	305.3
60	000	000	000	000	1.741	307.1	306.8	307.1	306.8	307.6	307.3	305.3	305.3	305.3
61	000	000	000	000	1.766	307.1	306.6	307.1	306.6	307.6	307.3	305.3	305.3	305.3
62	000	000	000	000	1.741	307.0	306.6	307.1	306.6	307.6	307.3	305.3	305.3	305.3
63	000	000	000	000	1.770	306.9	306.6	307.1	306.6	307.6	307.3	305.3	305.3	305.3
64	000	000	000	000	1.764	306.9	306.6	307.1	306.6	307.6	307.3	305.3	305.3	305.3
65	000	000	000	000	1.727	306.8	306.6	306.9	306.4	307.3	307.0	304.8	304.9	304.8
66	000	000	000	000	1.738	306.8	306.6	306.9	306.4	307.3	307.0	304.8	304.9	304.8
67	000	000	000	000	1.734	306.7	306.6	306.8	306.4	307.1	306.9	304.6	304.8	304.9
68	000	000	000	000	1.756	306.7	306.6	306.9	306.4	307.1	306.9	304.6	304.8	304.9
69	000	000	000	000	1.743	306.7	306.6	306.9	306.4	307.1	306.9	304.6	304.8	304.9
70	000	000	000	000	1.745	306.6	306.5	306.8	306.3	307.0	306.8	304.6	304.8	304.9
71	000	000	000	000	1.757	306.6	306.4	306.8	306.3	306.9	306.8	304.6	304.8	304.9

Table 10C – Scaling Run 202, Test Configuration 1: One 1.52 cm Nozzle

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 202																										
PRESSURANT FILL- THERMOCOUPLES																										
FURN - TOTAL, TANK LOCATION 1																										
TIME	P	T	(SEC)	(BAR)	1	2	3	4	5	6	7	8	9	10	11	12	13									
(SEC)	(BAR)	(DEG K)	(BAR)		(DEG K)																					
-5	...	...	305	1.304	9	304	0	309	304	5	305	0	303	7	302	5	303	5	303	6	303	1	303	4		
-4	...	...	305	1.304	9	304	0	309	304	5	305	0	303	3	302	5	303	1	303	9	303	5	303	1	303	2
-3	...	...	305	1.304	9	304	0	309	304	5	305	0	303	3	302	5	303	1	303	9	303	5	303	1	303	2
-2	...	...	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
-1	...	...	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
0	6.413	296.8	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
1	6.420	297.7	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
2	6.434	298.6	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
3	6.446	299.3	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
4	5.983	292.6	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
5	5.983	291.8	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
6	5.700	291.5	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
7	5.662	291.0	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
8	5.550	290.5	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
9	5.433	290.1	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
10	5.332	289.8	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
11	5.252	289.5	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
12	5.167	289.1	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
13	5.064	288.9	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
14	4.966	288.5	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
15	4.897	288.4	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
16	4.782	288.0	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
17	4.699	287.7	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
18	4.604	287.4	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
19	4.557	287.2	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
20	4.487	287.0	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
21	4.402	286.7	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
22	4.326	286.6	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
23	4.278	286.4	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
24	4.208	286.0	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
25	4.138	285.0	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
26	4.069	285.8	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
27	3.993	285.4	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
28	4.004	285.3	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
29	3.911	285.2	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
30	3.860	285.1	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
31	3.790	284.8	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
32	3.738	284.8	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
33	3.679	284.6	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
34	3.621	284.3	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
35	3.592	284.0	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
36	...	...	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
37	...	...	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
38	...	...	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2
39	...	...	305	1.304	9	304	0	309	304	5	305	0	303	1	302	5	303	1	303	9	303	5	303	1	303	2

(Table continues)

Table 10C — Scaling Run 202, Test Configuration 1: One 1.52 cm Nozzle (Continued)

S C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107																			
TIME (SEC)	P (BAR)	T (DEG K)	THERMOCOUPLES																
			LOCATION 1																
			T (DEG K)																
			1	2	3	4	5	6	7	8	9	10	11	12	13				
40	000	000	1.740	311.7	311.5	312.1	311.6	311.1	311.5	310.2	310.3	310.2	310.4	310.7	310.8	310.4	310.7	310.8	310.4
41	000	000	1.766	311.4	311.1	311.4	310.9	311.2	310.6	310.2	310.0	310.2	310.4	310.7	310.8	310.4	310.7	310.8	310.4
42	000	000	1.763	311.3	311.0	311.7	311.1	310.9	311.0	309.6	310.0	310.0	310.2	310.2	309.9	310.0	310.2	309.9	310.0
43	000	000	1.752	311.1	310.9	311.5	311.0	310.8	310.9	309.7	309.9	309.7	310.0	310.1	309.4	310.0	310.2	309.9	310.0
48	000	000	1.758	310.7	310.4	310.7	310.2	310.5	310.4	309.5	309.4	309.3	309.5	309.6	309.0	309.4	309.7	309.8	309.4
53	000	000	1.761	310.2	310.0	310.3	310.2	310.2	310.2	308.7	308.8	308.7	308.9	309.0	308.2	308.7	308.9	309.0	308.4
58	000	000	1.766	310.0	309.6	310.0	309.9	310.0	309.8	308.3	308.3	308.2	308.6	308.7	307.8	308.2	307.9	308.2	308.2
63	000	000	1.766	309.8	309.2	309.6	309.5	309.7	309.4	308.1	308.1	307.9	308.2	308.4	307.5	308.0	307.5	308.0	308.0
68	000	000	1.764	309.4	308.8	309.3	309.1	309.4	309.1	307.8	307.6	307.5	307.8	308.1	307.0	307.6	307.5	308.0	308.0
73	000	000	1.750	309.1	308.5	308.9	308.8	309.1	308.8	307.4	307.2	307.2	307.5	307.9	306.6	307.4	307.3	307.6	307.6
78	000	000	1.749	308.9	308.2	308.7	308.5	308.8	308.8	306.9	306.9	306.8	306.9	307.0	307.5	306.5	306.8	307.3	307.3
83	000	000	1.764	308.8	308.1	308.5	308.4	308.8	308.7	306.7	306.7	306.7	306.7	306.8	307.0	307.1	306.4	306.6	306.6
88	000	000	1.743	308.7	308.0	308.4	308.2	308.7	308.5	306.6	306.6	306.7	306.9	307.0	307.1	306.4	306.6	306.6	306.6
93	000	000	1.739	308.5	308.0	308.4	308.1	308.6	308.4	306.6	306.6	306.6	306.6	306.9	307.0	306.2	306.5	306.6	306.5
103	000	000	1.747	308.2	307.8	308.2	308.0	308.4	308.2	306.3	306.4	306.4	306.7	306.7	306.7	306.3	306.6	307.0	307.0
113	000	000	1.751	308.0	307.6	308.0	307.6	308.1	308.0	306.1	306.2	306.1	306.6	306.6	306.4	305.9	306.1	306.5	306.5
123	000	000	1.769	307.9	307.5	307.9	307.5	308.0	307.9	305.9	305.9	305.9	306.6	306.6	306.2	305.9	305.9	305.9	305.9
133	000	000	1.736	307.7	307.3	307.8	307.4	307.9	307.8	305.9	305.9	305.9	306.4	306.4	306.1	305.7	305.9	305.9	305.9
143	000	000	1.721	307.6	307.3	307.8	307.3	308.0	307.8	305.8	305.8	305.8	306.6	306.6	306.3	305.9	305.6	305.7	305.7
153	000	000	1.732	307.6	307.2	307.6	307.1	308.0	307.7	305.7	305.7	305.7	306.6	306.6	306.3	305.9	305.6	305.7	305.7
163	000	000	1.747	307.5	307.1	307.6	307.1	308.0	307.6	305.5	305.5	305.5	306.4	306.4	306.1	305.7	305.5	305.5	305.5
173	000	000	1.767	307.5	307.0	307.6	307.0	307.6	307.6	305.3	305.3	305.3	306.1	306.1	305.7	305.5	305.5	305.5	305.5
183	000	000	1.734	307.4	307.0	307.6	307.0	307.6	307.6	305.3	305.3	305.3	306.1	306.1	305.7	305.5	305.5	305.5	305.5
193	000	000	1.738	307.3	307.0	307.5	306.9	307.4	307.6	305.2	305.2	305.2	306.0	306.0	305.6	305.3	305.3	305.3	305.3
203	000	000	1.749	307.3	307.0	307.5	306.8	307.5	307.5	305.2	305.2	305.2	306.0	306.0	305.6	305.3	305.3	305.3	305.3
213	000	000	1.750	307.3	306.9	307.4	306.8	307.5	307.5	305.2	305.2	305.2	306.0	306.0	305.6	305.3	305.3	305.3	305.3
223	000	000	1.752	307.2	306.9	307.3	306.8	307.5	307.5	305.2	305.2	305.2	306.0	306.0	305.6	305.3	305.3	305.3	305.3
233	000	000	1.755	307.1	306.9	307.4	306.8	307.4	307.4	305.2	305.2	305.2	306.0	306.0	305.6	305.3	305.3	305.3	305.3
243	000	000	1.762	307.1	306.8	307.3	306.8	307.4	307.4	305.1	305.1	305.1	305.9	305.9	305.5	305.2	305.2	305.2	305.2
253	000	000	1.757	307.1	306.8	307.2	306.7	307.4	307.3	305.0	305.0	305.0	305.8	305.8	305.4	305.1	305.2	305.2	305.2
263	000	000	1.759	307.1	306.8	307.1	306.6	307.3	307.3	305.0	305.0	305.0	305.8	305.8	305.4	305.1	305.2	305.2	305.2
273	000	000	1.751	307.0	306.8	307.1	306.6	307.2	307.3	305.0	305.0	305.0	305.8	305.8	305.4	305.1	305.2	305.2	305.2
283	000	000	1.746	307.0	306.8	307.1	306.6	307.1	307.2	304.9	304.9	304.9	305.7	305.7	305.3	305.0	305.0	305.0	305.0
293	000	000	1.748	307.0	306.7	307.1	306.6	307.1	307.2	304.9	304.9	304.9	305.7	305.7	305.3	305.0	305.0	305.0	305.0
303	000	000	1.751	307.0	306.7	307.1	306.6	307.0	307.1	304.9	304.9	304.9	305.7	305.7	305.3	305.0	305.0	305.0	305.0
313	000	000	1.765	307.0	306.7	307.0	306.6	307.0	307.1	305.0	305.0	305.0	305.8	305.8	305.4	305.1	305.2	305.2	305.2

Table 10D — Scaling Run 203, Test Configuration 1: One 1.52 cm Nozzle

TIME (SEC)	P (BAR)	FILL- PRESSURANT TANK	3 C METER CHAMBER PRESSURE (BAR)	OBSTRUCTED GAS MIXING RUN 203 THERMOCOUPLES LOCATION I (DEG K)	COORDINATES												
					1	2	3	4	5	6	7	8	9	10	11	12	13
-5	1.037	1.037	1.037	305 3 305 1 305 2 304 8 305 2 303 4 303 5 303 3 304 1 303 8 303 4 304 8	1	2	3	4	5	6	7	8	9	10	11	12	13
-4	1.032	1.032	1.032	305 3 305 2 305 1 305 2 304 8 305 2 303 4 303 5 303 3 304 1 303 8 303 4 304 8	1	2	3	4	5	6	7	8	9	10	11	12	13
-3	1.047	1.047	1.047	305 3 305 2 305 1 305 2 304 8 305 2 303 4 303 5 303 3 304 1 303 8 303 4 304 8	1	2	3	4	5	6	7	8	9	10	11	12	13
-2	1.046	1.046	1.046	305 3 305 2 305 1 305 2 304 8 305 2 303 4 303 5 303 3 304 1 303 8 303 4 304 8	1	2	3	4	5	6	7	8	9	10	11	12	13
-1	1.045	1.045	1.045	305 3 305 2 305 1 305 2 304 8 305 2 303 4 303 5 303 3 304 1 303 8 303 4 304 8	1	2	3	4	5	6	7	8	9	10	11	12	13
0	1.046	1.046	1.046	305 3 305 2 305 1 305 2 304 8 305 2 303 4 303 5 303 3 304 1 303 8 303 4 304 8	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1.035	1.035	1.035	305 3 305 2 305 1 305 2 304 8 305 2 303 4 303 5 303 3 304 1 303 8 303 4 304 8	1	2	3	4	5	6	7	8	9	10	11	12	13
2	1.074	1.074	1.074	307 4 307 3 307 2 307 1 307 2 306 6 307 3 306 6 307 3 306 6 307 3 306 6 307 3 306 6	1	2	3	4	5	6	7	8	9	10	11	12	13
3	1.114	1.114	1.114	308 8 308 7 308 6 308 5 308 4 308 3 308 2 308 1 308 0 307 9 307 8 307 7 307 6	1	2	3	4	5	6	7	8	9	10	11	12	13
4	1.138	1.138	1.138	310 5 310 4 310 3 310 2 310 1 310 0 309 9 309 8 309 7 309 6 309 5 309 4	1	2	3	4	5	6	7	8	9	10	11	12	13
5	1.152	1.152	1.152	311 5 311 4 311 3 311 2 311 1 311 0 310 9 310 8 310 7 310 6 310 5 310 4	1	2	3	4	5	6	7	8	9	10	11	12	13
6	1.205	1.205	1.205	312 2 312 1 312 0 311 9 311 8 311 7 311 6 311 5 311 4 311 3 311 2 311 1	1	2	3	4	5	6	7	8	9	10	11	12	13
7	1.232	1.232	1.232	312 7 312 6 312 5 312 4 312 3 312 2 312 1 311 0 310 9 310 8 310 7 310 6	1	2	3	4	5	6	7	8	9	10	11	12	13
8	1.235	1.235	1.235	313 3 313 2 313 1 313 0 312 9 312 8 312 7 312 6 312 5 312 4 312 3	1	2	3	4	5	6	7	8	9	10	11	12	13
9	1.280	1.280	1.280	313 5 313 4 313 3 313 2 313 1 313 0 312 9 312 8 312 7 312 6 312 5	1	2	3	4	5	6	7	8	9	10	11	12	13
10	1.309	1.309	1.309	313 8 313 7 313 6 313 5 313 4 313 3 313 2 313 1 313 0 312 9 312 8	1	2	3	4	5	6	7	8	9	10	11	12	13
11	1.312	1.312	1.312	313 8 313 7 313 6 313 5 313 4 313 3 313 2 313 1 313 0 312 9 312 8	1	2	3	4	5	6	7	8	9	10	11	12	13
12	1.344	1.344	1.344	313 9 313 8 313 7 313 6 313 5 313 4 313 3 313 2 313 1 313 0 312 9	1	2	3	4	5	6	7	8	9	10	11	12	13
13	1.376	1.376	1.376	314 0 314 1 314 2 314 3 314 4 314 5 314 6 314 7 314 8 314 9	1	2	3	4	5	6	7	8	9	10	11	12	13
14	1.374	1.374	1.374	314 0 314 1 314 2 314 3 314 4 314 5 314 6 314 7 314 8 314 9	1	2	3	4	5	6	7	8	9	10	11	12	13
15	1.421	1.421	1.421	314 0 314 1 314 2 314 3 314 4 314 5 314 6 314 7 314 8 314 9	1	2	3	4	5	6	7	8	9	10	11	12	13
16	1.434	1.434	1.434	313 9 313 8 313 7 313 6 313 5 313 4 313 3 313 2 313 1 313 0 312 9	1	2	3	4	5	6	7	8	9	10	11	12	13
17	1.435	1.435	1.435	313 9 313 8 313 7 313 6 313 5 313 4 313 3 313 2 313 1 313 0 312 9	1	2	3	4	5	6	7	8	9	10	11	12	13
18	1.467	1.467	1.467	313 8 313 7 313 6 313 5 313 4 313 3 313 2 313 1 313 0 312 9 312 8	1	2	3	4	5	6	7	8	9	10	11	12	13
19	1.491	1.491	1.491	313 8 313 7 313 6 313 5 313 4 313 3 313 2 313 1 313 0 312 9 312 8	1	2	3	4	5	6	7	8	9	10	11	12	13
20	1.520	1.520	1.520	313 8 313 7 313 6 313 5 313 4 313 3 313 2 313 1 313 0 312 9 312 8	1	2	3	4	5	6	7	8	9	10	11	12	13
21	1.519	1.519	1.519	313 7 313 6 313 5 313 4 313 3 313 2 313 1 313 0 312 9 312 8	1	2	3	4	5	6	7	8	9	10	11	12	13
22	1.569	1.569	1.569	313 6 313 5 313 4 313 3 313 2 313 1 313 0 312 9 312 8 312 7	1	2	3	4	5	6	7	8	9	10	11	12	13
23	1.567	1.567	1.567	313 6 313 5 313 4 313 3 313 2 313 1 313 0 312 9 312 8 312 7	1	2	3	4	5	6	7	8	9	10	11	12	13
24	1.594	1.594	1.594	313 5 313 4 313 3 313 2 313 1 313 0 312 9 312 8 312 7 312 6	1	2	3	4	5	6	7	8	9	10	11	12	13
25	1.616	1.616	1.616	313 4 313 3 313 2 313 1 313 0 312 9 312 8 312 7 312 6 312 5	1	2	3	4	5	6	7	8	9	10	11	12	13
26	1.612	1.612	1.612	313 4 313 3 313 2 313 1 313 0 312 9 312 8 312 7 312 6 312 5	1	2	3	4	5	6	7	8	9	10	11	12	13
27	1.649	1.649	1.649	313 3 313 2 313 1 313 0 312 9 312 8 312 7 312 6 312 5 312 4	1	2	3	4	5	6	7	8	9	10	11	12	13
28	1.642	1.642	1.642	313 3 313 2 313 1 313 0 312 9 312 8 312 7 312 6 312 5 312 4	1	2	3	4	5	6	7	8	9	10	11	12	13
29	1.681	1.681	1.681	313 2 313 1 313 0 312 9 312 8 312 7 312 6 312 5 312 4 312 3	1	2	3	4	5	6	7	8	9	10	11	12	13
30	1.693	1.693	1.693	313 2 313 1 313 0 312 9 312 8 312 7 312 6 312 5 312 4 312 3	1	2	3	4	5	6	7	8	9	10	11	12	13
31	1.728	1.728	1.728	313 1 313 0 312 9 312 8 312 7 312 6 312 5 312 4 312 3 312 2	1	2	3	4	5	6	7	8	9	10	11	12	13
32	1.728	1.728	1.728	313 1 313 0 312 9 312 8 312 7 312 6 312 5 312 4 312 3 312 2	1	2	3	4	5	6	7	8	9	10	11	12	13
33	1.736	1.736	1.736	313 1 313 0 312 9 312 8 312 7 312 6 312 5 312 4 312 3 312 2	1	2	3	4	5	6	7	8	9	10	11	12	13
34	1.760	1.760	1.760	313 1 313 0 312 9 312 8 312 7 312 6 312 5 312 4 312 3 312 2	1	2	3	4	5	6	7	8	9	10	11	12	13
35	1.769	1.769	1.769	312 9 312 8 312 7 312 6 312 5 312 4 312 3 312 2 312 1 312 0	1	2	3	4	5	6	7	8	9	10	11	12	13
36	1.783	1.783	1.783	312 8 312 7 312 6 312 5 312 4 312 3 312 2 312 1 312 0	1	2	3	4	5	6	7	8	9	10	11	12	13
37	1.772	1.772	1.772	312 5 312 4 312 3 312 2 312 1 312 0 311 9 311 8 311 7 311 6	1	2	3	4	5	6	7	8	9	10	11	12	13
38	1.734	1.734	1.734	312 3 312 2 312 1 312 0 311 9 311 8 311 7 311 6 311 5 311 4	1	2	3	4	5	6	7	8	9	10	11	12	13
39	1.780	1.780	1.780	312 0 312 0 312 0 312 0 311 9 311 8 311 7 311 6 311 5 311 4	1	2	3	4	5	6	7	8	9	10	11	12	13

(Table continues)

Table 10D — Scaling Run 203, Test Configuration 1: One 1.52 cm Nozzle (Continued)

S C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107																			
PRESSURANT		FILL		THERMOCOUPLES		LOCATION 1		LOCATION 2		LOCATION 3		LOCATION 4		LOCATION 5		LOCATION 6		LOCATION 7	
FOU - TOTAL		TANK		P		T (°C K)		T (°C K)		T (°C K)		T (°C K)		T (°C K)		T (°C K)		T (°C K)	
TIME	P	Y	P	Y	P	1	2	3	4	5	6	7	8	9	10	11	12	13	
(SEC)	(BAR)	(DEC K)	(BAR)	(DEC K)	(BAR)	1	2	3	4	5	6	7	8	9	10	11	12	13	
40	000	000	1.765	000	000	311.9	311.8	312.3	312.0	311.4	311.6	310.4	310.5	310.3	310.8	312.5	310.3	310.5	
41	000	000	1.768	000	000	311.7	311.6	312.1	311.7	311.1	311.5	310.4	310.3	310.2	310.6	310.5	310.2	310.3	
42	000	000	1.763	000	000	311.6	311.5	312.0	311.2	311.5	310.8	310.2	310.1	310.0	311.6	310.4	311.5	310.2	
43	000	000	1.747	000	000	311.6	311.4	311.8	311.1	311.2	311.4	310.0	310.2	309.8	310.2	310.3	310.0	310.2	
44	000	000	1.732	000	000	311.0	310.7	311.1	310.9	310.6	311.0	311.6	309.5	309.1	309.6	309.7	309.1	309.5	
45	000	000	1.732	000	000	310.7	310.4	310.7	310.6	310.4	310.4	308.8	308.9	308.8	309.2	309.3	308.5	308.8	
46	000	000	1.776	000	000	310.2	309.9	310.2	310.2	310.2	310.0	308.5	308.4	308.3	308.8	308.8	307.9	308.5	
47	000	000	1.777	000	000	309.9	309.6	309.8	309.9	310.0	309.7	308.2	308.1	308.1	308.5	308.5	307.6	308.1	
48	000	000	1.763	000	000	309.7	309.3	309.5	309.5	309.5	309.4	307.9	307.6	307.8	308.1	308.3	307.1	307.6	
49	000	000	1.752	000	000	309.4	308.9	309.3	309.3	309.3	309.2	307.5	307.5	310.7	307.8	308.0	306.8	307.5	
50	000	000	1.742	000	000	309.2	308.7	309.0	308.9	308.9	309.0	307.1	307.1	307.0	307.6	307.7	306.6	307.1	
51	000	000	1.762	000	000	309.6	308.9	308.8	308.8	308.8	308.8	307.1	306.8	306.9	307.4	307.5	306.6	306.8	
52	000	000	1.767	000	000	308.9	308.4	308.8	308.7	308.9	308.8	306.8	306.8	306.6	307.4	307.5	306.4	306.7	
53	000	000	1.739	000	000	308.8	308.2	308.7	308.5	308.8	308.7	306.6	306.6	306.6	307.2	307.1	306.1	306.6	
54	000	000	1.776	000	000	308.5	308.1	308.5	308.2	308.5	308.4	306.6	306.6	306.6	307.2	307.1	306.1	306.6	
55	000	000	1.777	000	000	308.3	308.0	308.2	308.0	308.3	308.2	306.4	306.5	306.2	306.8	307.1	306.2	306.5	
56	000	000	1.741	000	000	308.1	307.8	308.1	307.9	308.2	308.1	306.1	306.3	306.1	306.6	306.6	306.1	306.2	
57	000	000	1.745	000	000	308.0	307.6	308.1	307.6	308.1	308.1	305.9	306.1	305.9	306.6	306.3	305.9	305.9	
58	000	000	1.737	000	000	308.0	307.6	308.0	307.6	308.1	308.1	305.8	305.9	305.8	306.5	306.1	305.8	305.9	
59	000	000	1.759	000	000	307.9	307.5	308.0	307.5	308.2	308.0	305.8	305.9	305.8	306.5	306.1	305.8	305.9	
60	000	000	1.743	000	000	307.8	307.5	307.8	307.4	308.2	308.0	305.6	305.8	305.6	306.3	305.9	305.8	305.8	
61	000	000	1.768	000	000	307.8	307.4	307.9	307.3	308.2	308.0	305.7	305.7	305.5	306.4	305.9	305.7	305.7	
62	000	000	1.744	000	000	307.7	307.3	307.8	307.2	307.9	308.0	305.5	305.7	305.4	306.2	305.7	305.6	305.5	
63	000	000	1.765	000	000	307.6	307.3	307.8	307.1	307.6	307.8	305.4	305.6	305.3	306.3	305.7	305.5	305.5	
64	000	000	1.735	000	000	307.6	307.2	307.6	307.1	307.6	307.8	305.3	305.5	305.3	306.2	305.7	305.5	305.5	
65	000	000	1.732	000	000	307.6	307.3	307.6	307.0	307.6	307.8	305.3	305.5	305.3	306.2	305.5	305.3	305.5	
66	000	000	1.763	000	000	307.6	307.1	307.6	307.0	307.6	307.8	305.3	305.5	305.3	306.2	305.5	305.3	305.5	
67	000	000	1.745	000	000	307.5	307.1	307.6	307.0	307.6	307.8	305.2	305.4	305.2	306.1	305.4	305.3	305.4	
68	000	000	1.723	000	000	307.5	307.2	307.6	307.0	307.6	307.8	305.2	305.4	305.2	306.1	305.4	305.3	305.4	
69	000	000	1.773	000	000	307.5	307.2	307.6	307.0	307.6	307.8	305.2	305.4	305.2	306.1	305.4	305.3	305.4	
70	000	000	1.773	000	000	307.5	307.2	307.6	307.0	307.6	307.8	305.2	305.4	305.2	306.1	305.4	305.3	305.4	
71	000	000	1.743	000	000	307.5	307.2	307.6	307.0	307.6	307.8	305.2	305.4	305.2	306.1	305.4	305.3	305.4	
72	000	000	1.733	000	000	307.4	307.1	307.6	307.0	307.6	307.8	305.2	305.4	305.2	306.1	305.4	305.3	305.4	
73	000	000	1.773	000	000	307.4	307.1	307.6	307.0	307.6	307.8	305.2	305.4	305.2	306.1	305.4	305.3	305.4	
74	000	000	1.723	000	000	307.3	307.1	307.5	306.9	307.4	307.6	305.2	305.2	305.2	306.1	305.2	305.3	305.2	
75	000	000	1.773	000	000	307.3	307.1	307.6	306.9	307.4	307.6	305.2	305.2	305.2	306.1	305.2	305.3	305.2	
76	000	000	1.760	000	000	307.4	307.0	307.5	306.9	307.3	307.6	305.2	305.2	305.2	306.1	305.2	305.3	305.2	
77	000	000	1.741	000	000	307.3	307.0	307.4	306.9	307.3	307.5	305.1	305.2	305.2	306.0	305.3	305.2	305.2	
78	000	000	1.760	000	000	307.2	307.0	307.4	306.8	307.4	307.5	305.1	305.2	305.2	306.0	305.2	305.2	305.2	
79	000	000	1.737	000	000	307.2	307.0	307.4	306.8	307.3	307.5	305.1	305.2	305.2	306.0	305.2	305.2	305.2	
80	000	000	1.757	000	000	307.2	307.0	307.4	306.8	307.3	307.5	305.1	305.2	305.2	306.0	305.2	305.2	305.2	

Table 10E — Scaling Run 204, Test Configuration 1: One 1.52 cm Nozzle

TIME (SEC)	P (BAR)	T (DEG K)	FILL- PRESSURANT FOR - TOTAL	TANK P	5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 204 THERMOCOUPLES LOCATION 1 T (DEG K)	COORDINATES												
						1	2	3	4	5	6	7	8	9	10	11	12	13
-5	...	...	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.2
-4	...	...	...	...	...	304.9	304.8	304.9	304.8	304.3	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
-3	...	...	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
-2	...	...	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
-1	...	...	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
0	6.391	296.2	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.2
1	6.409	296.2	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
2	6.410	296.1	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
3	6.412	296.4	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
4	6.414	296.2	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
5	6.416	296.1	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
6	6.418	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
7	6.420	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
8	6.422	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
9	6.424	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
10	6.426	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
11	6.428	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
12	6.430	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
13	6.432	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
14	6.434	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
15	6.436	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
16	6.438	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
17	6.440	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
18	6.442	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
19	6.444	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
20	6.446	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
21	6.448	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
22	6.450	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
23	6.452	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
24	6.454	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
25	6.456	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
26	6.458	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
27	6.460	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
28	6.462	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
29	6.464	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
30	6.466	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
31	6.468	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
32	6.470	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
33	6.472	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
34	6.474	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
35	6.476	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
36	6.478	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
37	6.480	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
38	6.482	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3
39	6.484	296.0	...	...	...	304.9	304.8	304.9	304.8	304.4	304.8	303.3	303.5	303.1	303.9	303.5	303.1	303.3

(Table continues)

Table 10E — Scaling Run 204, Test Configuration 1: One 1.52 cm Nozzle (Continued)

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107																
PRESSURANT FILL- FOR - TOTAL			THERMOCOUPLES LOCATION 1													
TIME (SEC)	P (BAR)	T (DEC K)	1	2	3	4	5	6	7	8	9	10	11	12	13	
40	000	000	1.756	311.6	311.5	312.2	311.5	311.1	311.3	310.2	310.5	310.6	310.7	310.7	310.2	310.3
41	000	000	1.765	311.3	311.2	312.0	311.3	310.9	311.1	310.3	310.4	310.3	310.5	310.8	310.2	310.3
42	000	000	1.777	311.1	311.1	311.0	311.3	310.9	311.0	310.2	310.2	310.2	310.2	310.4	309.9	310.2
43	000	000	1.765	311.0	311.0	311.6	311.1	310.7	310.9	310.9	310.3	310.1	310.1	310.3	309.8	310.0
44	000	000	1.749	311.0	310.8	311.5	311.0	310.7	310.8	309.7	310.2	309.8	310.0	310.1	309.5	309.9
45	000	000	1.773	310.5	310.2	310.0	310.4	310.3	310.2	309.3	309.5	309.1	309.3	309.5	308.8	309.3
54	000	000	1.781	310.0	309.6	310.2	309.9	310.0	309.7	308.8	308.9	308.7	308.8	309.0	308.1	308.6
55	000	000	1.762	309.5	309.1	309.8	309.5	309.3	309.3	308.1	308.4	308.1	308.2	308.5	307.6	308.2
64	000	000	1.767	309.3	308.7	309.5	309.2	309.4	309.1	307.7	308.1	307.7	307.9	308.1	307.3	308.0
65	000	000	1.776	309.1	308.5	309.3	308.9	309.1	308.9	307.3	307.6	307.3	307.7	307.9	306.9	307.3
74	000	000	1.764	308.9	308.3	309.1	308.8	308.8	308.7	307.0	307.5	307.1	307.5	307.4	306.6	307.0
79	000	000	1.760	308.7	308.1	308.8	308.4	308.7	308.4	306.7	306.9	306.9	307.2	307.3	306.5	306.9
84	000	000	1.758	308.5	308.0	308.6	308.2	308.6	308.3	306.6	306.6	306.6	307.0	307.0	306.4	306.6
89	000	000	1.761	308.3	307.9	308.4	308.1	308.5	308.1	306.6	306.6	306.6	306.9	307.0	306.2	306.6
94	000	000	1.760	308.2	307.7	308.4	308.0	308.3	308.2	306.4	306.6	306.6	306.8	306.7	306.2	306.4
104	000	000	1.773	308.1	307.6	308.2	307.8	308.2	308.0	306.2	306.4	306.2	306.6	306.6	306.2	306.2
114	000	000	1.747	307.8	307.4	308.0	307.5	308.0	307.8	306.0	306.2	306.1	306.4	306.4	305.9	306.0
124	000	000	1.761	307.6	307.3	308.0	307.4	307.8	307.6	305.9	306.1	305.9	306.4	306.2	305.8	305.9
134	000	000	1.761	307.5	307.2	307.8	307.3	307.6	307.6	305.7	305.9	305.9	306.4	306.0	305.8	305.9
144	000	000	1.740	307.4	307.1	307.8	307.1	307.6	307.4	305.6	305.9	305.6	306.2	305.9	305.6	305.8
154	000	000	1.762	307.3	307.0	307.7	307.0	307.6	307.4	305.5	305.8	305.6	306.2	305.9	305.5	305.5
164	000	000	1.761	307.3	306.9	307.6	306.9	307.8	307.3	305.3	305.7	305.4	306.1	305.6	305.5	305.4
174	000	000	1.764	307.3	306.9	307.6	306.9	307.7	307.3	305.3	305.5	305.3	306.1	305.5	305.4	305.4
184	000	000	1.764	307.1	306.9	307.6	306.8	307.5	307.3	305.2	305.5	305.3	306.1	305.5	305.4	305.3
194	000	000	1.768	307.1	306.8	307.5	306.7	307.6	307.3	305.2	305.5	305.3	306.1	305.4	305.3	305.2
204	000	000	1.766	307.0	306.8	307.5	306.6	307.5	307.3	305.2	305.4	305.3	306.0	305.4	305.3	305.2
214	000	000	1.758	307.0	306.7	307.5	306.6	307.5	307.2	305.2	305.4	305.3	305.9	305.3	305.3	305.2
224	000	000	1.759	307.0	306.8	307.5	306.6	307.3	307.2	305.1	305.3	305.2	305.9	305.4	305.3	305.2
234	000	000	1.773	307.0	306.7	307.4	306.6	307.4	307.1	305.1	305.3	305.2	305.9	305.2	305.2	305.2

Table 10F -- Scaling Run 205, Test Configuration 1: One 1.52 cm Nozzle

TIME (SEC)	P (BAR)	S C METER CHAMBER PRESSURANT FILL- FOR - TOTAL, TANK	T (DEC K)	THERMOCOUPLES LOCATION 1 (DEC K)	COORDINATES												
					1	2	3	4	5	6	7	8	9	10	11	12	13
-5	1.041		304.1	304.0	304.2	304.0	303.5	304.0	303.6	304.0	302.4	302.6	302.3	303.1	302.7	302.5	303.6
-4	1.056		304.2	304.0	304.1	304.0	303.7	304.0	303.7	304.0	302.4	302.8	302.4	303.0	302.7	302.4	302.4
-3	1.039		304.2	304.0	304.1	304.0	303.7	304.0	303.7	304.0	302.4	302.8	302.4	303.0	302.7	302.4	302.5
-2	1.069		304.2	304.0	304.1	304.0	303.7	304.0	303.7	304.0	302.4	302.8	302.4	303.0	302.7	302.4	302.4
-1	1.047		304.1	304.0	304.1	304.0	303.8	304.0	303.5	304.0	302.4	302.6	302.4	303.0	302.7	302.4	302.5
0	1.056		304.1	304.0	304.0	304.0	303.8	304.0	303.5	304.0	302.4	302.6	302.4	303.0	302.7	302.4	302.4
1	1.032		304.1	304.0	304.0	304.0	303.8	304.0	303.5	304.0	302.4	302.8	302.5	303.0	302.7	302.4	302.4
2	1.076		304.8	304.3	304.0	304.4	304.5	305.0	303.5	304.8	304.0	304.8	304.0	304.5	304.1	303.8	303.8
3	1.095		307.3	307.2	305.4	307.4	306.4	307.5	305.1	306.5	305.4	306.0	305.4	306.0	305.6	305.3	305.3
4	1.120		309.0	309.1	307.1	309.1	308.2	309.5	307.1	308.4	307.1	308.4	307.1	307.7	307.6	307.3	307.2
5	1.150		310.0	310.0	308.4	310.1	309.3	310.2	304.5	309.7	308.5	308.8	308.9	308.9	308.9	308.9	308.7
6	1.184		311.0	310.0	309.8	310.9	310.3	311.2	309.4	310.5	309.5	309.8	310.0	310.6	310.4	310.2	310.2
7	1.200		311.6	311.0	310.8	311.7	311.0	311.9	310.2	310.9	310.2	310.6	310.9	311.0	310.9	310.9	310.7
8	1.245		312.0	312.1	311.5	312.2	311.2	312.7	310.5	311.4	310.6	311.0	311.0	311.4	311.4	311.3	311.1
9	1.256		312.3	312.4	312.2	312.5	311.7	312.2	311.3	311.6	311.3	311.6	311.6	311.6	311.6	311.5	311.5
10	1.272		312.4	312.0	312.6	312.0	311.7	312.6	311.2	311.7	311.7	311.7	311.6	311.6	311.6	311.6	311.6
11	1.320		312.7	312.9	312.8	312.9	311.7	312.8	311.5	312.0	311.6	311.6	311.6	311.6	311.6	311.6	311.6
12	1.325		312.7	313.1	313.1	313.1	311.7	312.7	311.5	312.0	311.6	311.6	311.6	311.6	311.6	311.6	311.6
13	1.363		312.8	313.1	313.2	313.1	311.0	312.7	311.7	311.8	311.6	311.6	311.6	311.6	311.6	311.6	311.6
14	1.375		312.8	313.2	313.2	313.1	311.6	312.7	311.7	312.0	311.6	311.6	311.6	311.6	311.6	311.6	311.6
15	1.411		312.8	313.1	313.3	313.1	311.8	312.7	311.6	311.9	311.6	311.6	311.6	311.6	311.6	311.6	311.6
16	1.409		312.8	312.9	313.3	313.1	311.6	312.6	311.7	311.8	311.6	311.6	311.6	311.6	311.6	311.6	311.6
17	1.443		312.8	312.9	313.2	313.0	311.7	312.6	311.7	311.7	311.6	311.6	311.6	311.6	311.6	311.6	311.6
18	1.462		312.7	312.9	313.2	313.0	311.5	312.6	311.6	311.7	311.6	311.6	311.6	311.6	311.6	311.6	311.6
19	1.465		312.7	312.8	313.1	312.9	311.5	312.4	311.6	311.7	311.6	311.6	311.6	311.6	311.6	311.6	311.6
20	1.518		312.6	312.7	313.1	312.9	311.2	312.6	311.6	311.7	311.6	311.6	311.6	311.6	311.6	311.6	311.6
21	1.509		312.6	312.8	313.0	312.9	311.3	312.3	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6
22	1.556		312.4	312.7	313.0	312.8	311.1	312.4	311.5	311.6	311.5	311.6	311.5	311.6	311.5	311.6	311.6
23	1.549		312.4	312.6	313.0	312.7	311.1	312.3	311.4	311.6	311.4	311.6	311.4	311.6	311.4	311.6	311.5
24	1.504		312.3	312.4	312.9	312.6	311.1	312.2	311.3	311.3	311.3	311.3	311.3	311.3	311.3	311.3	311.3
25	1.509		312.3	312.4	312.9	312.5	311.2	312.2	311.3	311.4	311.2	311.4	311.2	311.4	311.2	311.4	311.4
26	1.634		312.3	312.3	312.8	312.5	311.3	312.2	311.1	311.3	311.2	311.1	311.3	311.2	311.1	311.3	311.2
27	1.613		312.3	312.3	312.7	312.5	310.9	312.2	311.2	311.1	311.1	311.1	311.1	311.1	311.1	311.2	311.3
28	1.653		312.2	312.3	312.7	312.4	311.0	312.3	311.0	311.2	311.0	311.2	311.1	311.1	311.1	311.0	311.1
29	1.652		312.2	312.3	312.6	312.4	311.0	312.0	310.9	311.2	311.0	311.2	311.0	311.2	311.0	311.2	311.1
30	1.690		312.0	312.2	312.5	312.3	311.0	312.0	310.9	311.1	311.0	311.0	311.0	311.0	311.0	311.0	311.0
31	1.714		312.1	312.2	312.5	312.3	310.8	312.0	311.0	311.0	311.0	311.0	311.0	311.0	311.0	311.0	311.0
32	1.711		312.1	312.2	312.4	312.3	310.9	311.9	310.9	311.0	310.9	311.0	310.9	311.1	311.2	310.9	311.0
33	1.734		312.0	312.2	312.4	312.2	311.1	311.9	310.9	311.0	310.9	311.1	311.1	311.1	311.1	310.9	310.9
34	1.732		311.9	312.1	312.4	312.2	310.9	311.9	310.9	311.0	310.9	310.9	311.0	310.9	311.0	310.7	310.9
35	1.763		311.9	312.0	312.3	312.1	310.8	311.7	310.8	310.9	310.8	310.8	311.0	311.0	311.1	310.7	310.9
36	1.781		311.7	311.8	312.3	312.0	310.4	311.6	310.6	310.2	310.5	310.2	310.5	310.7	310.8	310.2	310.6
37	1.764		311.6	311.5	312.1	311.6	310.6	311.4	312.2	310.2	310.2	310.2	310.2	310.4	310.5	310.1	310.3
38	1.766		311.3	311.1	311.9	311.3	310.6	311.1	309.9	310.0	309.9	310.2	310.0	310.2	310.2	309.7	310.0
39	1.770		311.1	311.0	311.7	311.1	310.5	310.5	309.6	309.8	309.7	310.0	310.0	310.0	309.6	309.8	309.8

(Table continues)

Table 10F — Scaling Run 205, Test Configuration 1: One 1.52 cm Nozzle (Continued)

S C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107															
PRESSURANT FILL- FOU - TOTAL		THERMOCOUPLES LOCATION T													
TIME (SEC)	T (DEC K)	P (BAR)	1	2	3	4	5	6	7	8	9	10	11	12	13
40	...	1.759	311.0	310.8	311.6	311.0	310.4	310.0	309.5	309.5	309.3	309.8	309.9	309.4	309.7
41	...	1.751	310.7	310.6	311.3	310.7	310.2	310.5	309.4	309.5	309.3	309.6	309.7	309.2	309.5
42	...	1.761	310.7	310.4	311.2	310.6	310.2	310.3	309.4	309.4	309.2	309.5	309.6	309.1	309.4
43	...	1.765	310.6	310.2	311.0	310.5	310.1	310.2	309.1	309.3	309.1	309.3	309.5	308.9	309.1
44	...	1.761	310.4	310.1	310.9	310.4	310.1	310.2	309.1	309.1	308.9	309.1	309.4	308.7	309.0
49	...	1.757	309.9	309.5	310.2	309.8	309.5	309.6	308.2	308.5	308.3	308.6	308.7	308.1	308.4
54	...	1.752	309.6	309.1	309.7	309.5	309.3	309.3	307.9	308.0	307.9	308.1	308.3	307.4	308.0
59	...	1.769	309.2	308.8	309.4	309.1	309.3	309.1	307.3	307.5	307.4	307.8	307.9	307.2	307.2
64	...	1.763	309.1	308.6	309.0	308.9	308.9	308.8	306.8	307.1	307.0	307.5	307.4	306.6	307.0
69	...	1.763	308.8	308.2	308.8	308.6	308.8	308.5	306.6	306.8	306.6	307.0	307.0	306.3	306.6
74	...	1.761	308.3	307.8	308.4	308.1	308.4	308.0	306.2	306.6	306.4	306.7	306.7	306.0	306.4
79	...	1.763	308.0	307.5	308.0	307.8	308.1	307.7	306.0	306.2	306.1	306.5	306.6	305.8	306.0
84	...	1.760	307.8	307.4	308.0	307.6	308.0	307.6	305.8	306.0	305.9	306.3	306.3	305.5	305.5
89	...	1.734	307.7	307.1	307.8	307.4	307.8	307.5	305.7	305.7	305.8	306.1	306.1	305.3	305.8
94	...	1.761	307.6	307.0	307.6	307.3	307.6	307.5	305.3	305.3	305.7	305.7	305.9	305.3	305.5
104	...	1.769	307.3	306.9	307.5	307.1	307.5	307.3	305.4	305.5	305.3	305.9	305.8	305.2	305.3
114	...	1.748	307.1	306.7	307.3	306.8	307.5	307.1	305.2	305.4	305.3	305.7	305.6	305.2	305.2
124	...	1.763	307.0	306.6	307.1	306.6	307.4	307.0	305.1	305.2	305.1	305.7	305.3	305.0	305.0
134	...	1.738	306.8	306.6	307.1	306.6	307.5	306.9	305.0	305.2	304.9	305.6	305.2	304.9	305.0
144	...	1.737	306.8	306.4	307.0	306.4	307.4	306.8	304.0	305.0	304.8	305.5	305.1	304.8	304.9
154	...	1.761	306.7	306.4	307.0	306.4	307.3	306.8	304.7	304.9	304.6	305.3	304.8	304.7	304.8
164	...	1.737	306.6	306.3	306.9	306.2	307.0	306.7	304.5	304.9	304.6	305.3	304.8	304.6	304.8
174	...	1.766	306.6	306.3	306.9	306.2	306.9	306.7	304.5	304.8	304.5	305.3	304.8	304.6	304.5
184	...	1.741	306.6	306.3	306.9	306.2	306.9	306.7	304.5	304.8	304.5	305.3	304.7	304.6	304.7
194	...	1.736	306.6	306.2	306.8	306.1	306.8	306.6	304.5	304.7	304.5	305.2	304.5	304.5	304.5
204	...	1.770	306.4	306.2	306.8	306.1	306.8	306.6	304.5	304.6	304.5	305.2	304.5	304.5	304.5
214	...	1.754	306.4	306.1	306.6	305.0	306.8	306.6	304.4	304.6	304.5	305.2	304.5	304.5	304.5
224	...	1.738	306.4	306.1	306.6	305.9	306.8	306.6	304.4	304.6	304.5	305.2	304.5	304.5	304.5
234	...	1.760	306.4	306.0	306.6	305.9	306.7	306.6	304.3	304.5	304.5	305.0	304.5	304.5	304.5
244	...	1.765	306.2	305.9	306.6	305.8	306.6	306.6	304.4	304.5	304.5	305.0	304.5	304.5	304.4
254	...	1.744	306.2	305.9	306.6	305.8	306.6	306.6	304.4	304.5	304.5	305.0	304.5	304.5	304.5
264	...	1.736	306.2	305.9	306.6	305.8	306.6	306.6	304.4	304.5	304.5	305.0	304.5	304.5	304.5
274	...	1.752	306.3	305.9	306.6	305.7	306.4	306.3	304.3	304.5	304.5	304.9	304.5	304.4	304.4
284	...	1.745	306.2	305.8	306.4	305.6	306.4	306.3	304.3	304.5	304.5	304.9	304.5	304.4	304.4
294	...	1.764	306.2	305.9	306.3	305.7	306.2	306.2	304.2	304.5	304.4	304.8	304.5	304.4	304.3
304	...	1.747	306.1	305.9	306.1	305.6	306.2	306.2	304.2	304.4	304.4	304.9	304.4	304.4	304.3

Table 10G – Scaling Run 206, Test Configuration 1: One 1.52 cm Nozzle

S C METER CHANGE OBSERVED GAS MINING RUN 200																
TIME (HOUR)	PRESSURE (PSI)	FILL- TANK T	THERMOCOPIES LOCATION 1 (DEG F)	COORDINATES												
				1	2	3	4	5	6	7	8	9	10	11	12	13
003	303.1	303.4	303.2	302.9	303.3	302.0	301.8	301.3	302.2	302.1	302.0	301.8	1	0.229	00	0.152
004	303.2	303.1	302.9	302.6	303.2	302.0	301.8	301.3	302.2	302.1	302.0	301.8	2	0.229	00	0.152
005	303.3	303.2	303.0	302.7	303.3	302.1	301.9	301.4	302.3	302.2	302.1	301.9	3	0.076	00	0.152
006	303.4	303.3	303.1	302.8	303.4	302.2	302.0	301.5	302.4	302.3	302.2	302.0	4	0.102	00	0.076
007	303.5	303.4	303.2	302.9	303.5	302.3	302.1	301.6	302.5	302.4	302.3	302.1	5	0.132	00	0.152
008	303.6	303.5	303.3	303.0	303.6	302.4	302.2	301.7	302.6	302.5	302.4	302.2	6	0.076	00	0.152
009	303.7	303.6	303.4	303.1	303.7	302.5	302.3	301.8	302.7	302.6	302.5	302.3	7	0.229	00	0.152
010	303.8	303.7	303.5	303.2	303.8	302.6	302.4	301.9	302.8	302.7	302.6	302.4	8	0.229	00	0.152
011	303.9	303.8	303.6	303.3	303.9	302.7	302.5	302.0	302.9	302.8	302.7	302.5	9	0.076	00	0.076
012	304.0	303.9	303.7	303.4	304.0	302.8	302.6	302.1	303.0	302.9	302.8	302.6	10	0.229	00	0.152
013	304.1	304.0	303.8	303.5	304.1	302.9	302.7	302.2	303.1	303.0	302.9	302.7	11	0.152	00	0.262
014	304.2	304.1	303.9	303.6	304.2	303.0	302.8	302.3	303.2	303.1	303.0	302.8	12	0.229	00	0.152
015	304.3	304.2	304.0	303.7	304.3	303.1	302.9	302.4	303.3	303.2	303.1	302.9	13	0.229	00	0.152
016	304.4	304.3	304.1	303.8	304.4	303.2	303.0	302.5	303.4	303.3	303.2	303.0				
017	304.5	304.4	304.2	303.9	304.5	303.3	303.1	302.6	303.5	303.4	303.3	303.1				
018	304.6	304.5	304.3	304.0	304.6	303.4	303.2	302.7	303.6	303.5	303.4	303.2				
019	304.7	304.6	304.4	304.1	304.7	303.5	303.3	302.8	303.8	303.7	303.6	303.4				
020	304.8	304.7	304.5	304.2	304.8	303.6	303.4	302.9	303.9	303.8	303.7	303.5				
021	304.9	304.8	304.6	304.3	304.9	303.7	303.5	303.0	304.0	303.9	303.8	303.6				
022	305.0	304.9	304.7	304.4	305.0	303.8	303.6	303.1	304.1	304.0	303.9	303.7				
023	305.1	305.0	304.8	304.5	305.1	303.9	303.7	303.2	304.2	304.1	304.0	303.8				
024	305.2	305.1	304.9	304.6	305.2	304.0	303.8	303.3	304.3	304.2	304.1	303.9				
025	305.3	305.2	305.0	304.7	305.3	304.1	303.9	303.4	304.4	304.3	304.2	304.0				
026	305.4	305.3	305.1	304.8	305.4	304.2	304.0	303.5	304.5	304.4	304.3	304.1				
027	305.5	305.4	305.2	304.9</												

(Table continues)

Table 10G — Scaling Run 206, Test Configuration 1: One 1.52 cm Nozzle (Continued)

S C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107													
PRESSURE		FILL- THERMOCOUPLES		LOCATION 1		LOCATION 2		LOCATION 3		LOCATION 4		LOCATION 5	
TIME		P		T		T		T		T		T	
(SEC)	(BAR)	(BAR)	(K)	(K)	(K)	(K)	(K)	(K)	(K)	(K)	(K)	(K)	(K)
40	0.00	1.728	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0
41	0.00	1.763	309.8	309.8	310.0	309.7	309.5	309.5	309.5	309.5	309.5	309.5	309.5
42	0.00	1.771	309.7	309.6	310.3	309.7	309.5	309.5	309.7	308.7	308.7	308.7	308.7
43	0.00	1.758	309.5	309.5	310.2	309.7	309.4	309.5	308.6	308.4	308.3	308.6	308.4
44	0.00	1.755	309.2	309.1	309.6	309.3	309.1	309.0	308.0	308.1	307.7	307.9	307.6
45	0.00	1.755	308.9	308.5	309.1	308.9	308.8	308.7	307.4	307.4	307.0	307.6	307.3
46	0.00	1.748	308.7	308.2	308.8	308.7	308.5	308.4	307.0	306.8	306.7	307.1	306.9
47	0.00	1.746	308.4	307.8	308.4	308.2	308.3	308.0	306.5	306.6	306.5	306.8	306.4
48	0.00	1.763	308.1	307.3	308.1	307.8	308.0	307.8	306.0	307.1	306.0	306.2	305.6
49	0.00	1.741	307.8	306.5	307.8	307.5	307.5	307.4	305.5	305.5	305.6	305.9	305.8
50	0.00	1.739	307.3	306.7	307.4	307.1	307.3	307.0	305.5	305.5	305.7	305.9	305.4
51	0.00	1.770	307.1	306.6	307.1	306.8	307.1	306.8	305.8	305.8	305.3	305.5	305.1
52	0.00	1.753	306.9	306.6	307.0	306.6	307.0	306.6	305.0	305.0	304.9	305.5	305.1
53	0.00	1.745	306.8	306.4	306.9	306.6	306.9	306.7	305.0	305.1	305.0	305.2	304.9
54	0.00	1.752	306.6	306.2	306.8	306.4	306.6	306.6	304.9	304.9	304.6	305.2	304.9
55	0.00	1.769	306.4	306.1	306.6	306.1	306.6	306.4	304.7	304.6	304.5	305.2	304.7
56	0.00	1.751	306.2	305.9	306.4	305.9	306.6	306.2	304.5	304.5	304.3	304.9	304.5
57	0.00	1.753	306.1	305.8	306.4	305.9	306.6	306.0	304.3	304.3	304.2	304.8	304.4
58	0.00	1.755	306.0	305.7	306.2	305.8	306.3	306.1	304.3	304.3	304.2	304.8	304.4
59	0.00	1.748	305.9	305.6	306.1	305.6	306.2	305.9	304.2	304.2	304.1	304.6	304.2
60	0.00	1.749	305.9	305.6	306.1	305.6	306.2	305.9	304.0	304.1	304.0	304.5	304.0
61	0.00	1.744	305.9	305.6	306.2	305.5	306.2	305.9	304.0	304.0	303.9	304.5	304.0
62	0.00	1.762	305.9	305.5	306.1	305.5	306.2	305.8	304.0	304.0	303.9	304.5	304.0
63	0.00	1.769	305.8	305.4	306.1	305.4	306.2	305.8	304.0	304.0	303.9	304.5	304.0
64	0.00	1.740	305.7	305.3	306.0	305.3	306.0	305.8	304.0	303.9	303.9	304.5	304.0
65	0.00	1.736	305.7	305.4	306.0	305.3	306.0	305.8	304.0	303.9	303.9	304.5	304.0
66	0.00	1.763	305.7	305.4	306.0	305.3	306.0	305.8	304.0	303.8	303.8	304.4	303.9
67	0.00	1.768	305.5	305.3	305.9	305.3	305.8	305.5	303.8	303.8	303.8	304.4	303.9
68	0.00	1.735	305.5	305.2	305.8	305.1	305.7	305.5	303.5	303.5	303.5	304.0	303.5
69	0.00	1.739	305.5	305.2	305.7	305.1	305.9	305.5	303.5	303.5	303.5	304.0	303.5
70	0.00	1.744	305.5	305.2	305.7	305.1	305.9	305.5	303.5	303.5	303.5	304.0	303.5
71	0.00	1.728	305.3	305.2	305.7	305.1	305.9	305.5	303.5	303.5	303.5	304.0	303.5
72	0.00	1.744	305.3	305.2	305.7	305.1	305.9	305.5	303.5	303.5	303.5	304.0	303.5
73	0.00	1.744	305.3	305.2	305.7	305.1	305.9	305.5	303.5	303.5	303.5	304.0	303.5
74	0.00	1.747	305.2	305.2	305.6	305.1	305.9	305.5	303.5	303.5	303.5	304.0	303.5
75	0.00	1.734	305.2	305.2	305.5	305.0	305.9	305.5	303.5	303.5	303.5	304.0	303.5

Table 10H — Scaling Run 207, Test Configuration 1: One 1.52 cm Nozzle

TIME (SEC)	P (BAR)	T (K)	FILL- PRESSURANT FOR - TOTAL	THERMOCOUPLES LOCATION 1 T (DEC K)	SCALING RUN 207													COORDINATES	
					1	2	3	4	5	6	7	8	9	10	11	12	13	I	R
-5	1.047	302.1	302.9	303.1	302.9	302.6	303.0	301.5	301.5	301.5	301.5	301.5	301.2	301.9	301.6	301.3	301.5	1	0.229
-4	1.032	303.1	302.9	303.1	302.9	302.6	303.0	301.5	301.5	301.5	301.5	301.5	301.2	301.9	301.6	301.3	301.4	2	0.229
-3	1.049	303.1	302.9	303.1	302.9	302.6	303.0	301.5	301.5	301.5	301.5	301.5	301.2	301.9	301.6	301.3	301.5	3	0.076
-1	1.030	303.1	302.9	303.1	302.9	302.6	303.0	301.5	301.5	301.5	301.5	301.5	301.2	301.9	301.6	301.3	301.5	4	0.102
0	1.032	303.1	302.9	303.1	302.9	302.6	303.0	301.5	301.5	301.5	301.5	301.5	301.2	301.9	301.6	301.3	301.4	5	0.076
1	1.049	303.1	302.9	303.1	302.9	302.6	303.0	301.5	301.5	301.5	301.5	301.5	301.2	301.9	301.6	301.3	301.5	6	0.152
2	1.060	303.1	302.9	303.1	302.9	302.6	303.0	301.5	301.5	301.5	301.5	301.5	301.2	301.9	301.6	301.3	301.5	7	0.229
3	1.083	304.8	304.3	303.3	304.5	304.0	303.0	303.1	304.4	303.4	303.4	303.4	303.2	303.9	302.8	303.4	303.3	8	0.229
4	1.114	306.7	306.3	304.9	306.5	306.0	307.0	305.2	306.3	305.3	305.3	305.3	305.2	305.9	304.8	305.4	305.3	9	0.076
5	1.140	308.2	308.2	306.4	308.3	307.6	308.6	306.8	308.1	306.6	306.6	306.6	306.6	307.3	306.1	307.1	306.9	10	0.229
6	1.175	309.0	309.2	307.6	309.2	308.5	309.4	307.9	309.0	307.8	307.8	307.8	307.8	308.4	307.5	308.3	308.2	11	0.152
7	1.198	310.0	310.0	308.8	310.0	309.3	310.2	308.8	309.7	308.7	308.7	308.7	308.7	309.0	308.1	309.1	309.0	12	0.229
8	1.218	310.6	310.7	309.8	310.6	310.2	310.7	309.2	309.8	308.9	308.9	308.9	308.9	309.2	308.3	309.3	309.4	13	0.229
9	1.247	310.9	311.1	310.2	311.0	310.3	311.1	309.7	310.2	309.7	310.2	309.7	310.2	309.7	310.2	310.2	310.2		
10	1.271	311.2	311.4	311.0	311.4	310.4	311.3	310.0	310.5	310.0	310.5	310.0	310.5	310.0	310.2	310.2	310.2		
11	1.297	311.4	311.6	311.6	311.6	310.6	311.5	310.3	310.7	310.3	310.7	310.3	310.7	310.3	310.4	310.5	310.4		
12	1.320	311.6	311.6	311.6	311.6	311.6	311.5	310.4	310.7	310.4	310.7	310.4	310.7	310.4	310.6	310.6	310.6		
13	1.333	311.6	311.6	311.6	311.6	311.6	311.5	310.4	310.7	310.4	310.7	310.4	310.7	310.4	310.6	310.6	310.6		
14	1.361	311.6	311.7	312.0	311.9	310.4	311.5	310.6	310.7	310.6	310.6	310.6	310.6	310.4	310.7	310.7	310.6		
15	1.384	311.6	311.7	312.0	311.9	310.4	311.5	310.6	310.7	310.6	310.6	310.6	310.6	310.4	310.7	310.7	310.6		
16	1.407	311.6	311.7	312.0	311.9	310.4	311.5	310.6	310.7	310.6	310.6	310.6	310.6	310.4	310.7	310.7	310.6		
17	1.428	311.5	311.7	312.0	311.7	310.3	311.5	310.5	310.6	310.5	310.6	310.5	310.6	310.4	310.8	310.7	310.7		
18	1.449	311.6	311.7	312.2	311.7	310.3	311.5	310.6	310.7	310.6	310.6	310.6	310.6	310.4	310.7	310.7	310.6		
19	1.476	311.6	311.6	312.0	311.7	310.3	311.5	310.6	310.7	310.6	310.6	310.6	310.6	310.4	310.7	310.7	310.6		
20	1.483	311.4	311.6	311.9	311.6	310.2	311.4	310.4	310.4	310.4	310.4	310.4	310.4	310.2	310.6	310.6	310.4		
21	1.506	311.4	311.6	311.9	311.6	310.2	311.4	310.4	310.4	310.4	310.4	310.4	310.4	310.2	310.6	310.6	310.4		
22	1.532	311.5	311.6	311.9	311.6	310.1	311.2	311.3	310.2	310.2	310.2	310.2	310.2	310.4	310.4	310.4	310.2		
23	1.549	311.4	311.6	311.7	311.6	310.1	311.1	310.2	310.2	310.2	310.2	310.2	310.2	310.4	310.4	310.4	310.2		
24	1.566	311.2	311.5	311.7	311.6	310.2	311.2	310.2	310.2	310.2	310.2	310.2	310.2	310.4	310.4	310.4	310.2		
25	1.584	311.3	311.3	311.6	311.5	310.2	311.2	310.2	310.2	310.2	310.2	310.2	310.2	310.4	310.4	310.4	310.2		
26	1.600	311.2	311.4	311.7	311.4	310.0	311.1	310.2	310.2	310.2	310.2	310.2	310.2	310.4	310.4	310.4	310.2		
27	1.614	311.0	311.2	311.6	311.3	310.2	310.9	310.2	309.9	310.0	310.2	309.9	310.0	310.2	310.2	309.9	310.1		
28	1.639	311.0	311.2	311.5	311.3	309.8	310.0	310.1	309.9	309.8	310.2	309.9	309.8	310.2	310.2	309.8	310.1		
29	1.660	311.0	311.2	311.5	311.2	310.0	310.9	309.9	309.9	309.8	310.2	309.9	309.8	310.2	310.2	309.8	310.1		
30	1.683	311.0	311.1	311.4	311.2	309.8	310.9	310.0	309.8	309.8	310.2	309.8	309.8	310.2	310.2	309.8	310.0		
31	1.685	311.0	311.1	311.5	311.3	309.7	310.8	310.0	309.8	309.7	310.1	310.0	309.7	310.1	310.0	309.8	309.9		
32	1.707	310.9	311.0	311.3	311.1	309.7	310.8	309.8	309.8	309.7	310.0	310.0	309.7	310.0	310.0	309.7	309.8		
33	1.718	310.9	310.9	311.3	311.0	309.6	310.7	309.9	309.8	309.8	309.7	310.0	309.9	309.8	309.9	309.7	309.8		
34	1.741	310.8	310.9	311.2	310.9	309.7	310.7	309.7	309.6	309.5	309.5	309.5	309.5	309.5	309.5	309.5	309.5		
35	1.753	310.8	310.9	311.1	310.9	309.7	310.7	309.8	309.5	309.5	309.5	309.5	309.5	309.5	309.5	309.5	309.5		
36	1.764	310.7	310.8	311.1	310.9	309.2	310.6	309.6	309.2	309.4	309.7	309.7	309.7	309.7	309.7	309.7	309.7		
37	1.769	310.6	310.7	311.1	310.7	309.7	310.3	309.4	309.1	309.3	309.5	309.5	309.5	309.5	309.5	309.5	309.5		
38	1.762	310.4	310.3	310.9	310.5	309.7	310.2	309.0	308.8	308.8	309.0	309.3	308.8	309.0	309.3	308.8	309.0		
39	1.757	310.2	310.1	310.8	310.3	309.5	310.0	308.7	308.6	308.6	308.8	309.1	308.8	309.1	308.8	308.5	308.7		
40	1.760	310.0	309.8	310.5	310.0	309.3	309.8	308.5	308.4	308.7	308.9	308.7	308.9	308.7	308.7	308.3	308.6		

(Table continues)

Table 10H — Scaling Run 207, Test Configuration 1: One 1.52 cm Nozzle (Continued)

S C METER CHAMBER OBSTRUCTED GAS MIXING RUN 207																			
PRESSURANT FILL- THERMOCOUPLES																			
FOR - T01HL		LOCATION 1																	
TIME	P	T	T (DEG K)																
			1	2	3	4	5	6	7	8	9	10	11	12	13				
40	***	***	1.764	***	309.7	309.7	310.4	309.8	309.4	309.6	308.4	308.3	308.5	308.5	308.5	308.1	308.4	13	
41	***	***	1.761	***	309.6	309.4	310.2	309.6	309.3	309.5	308.2	308.2	308.4	308.4	308.4	308.1	308.3		
42	***	***	1.759	***	309.4	309.2	310.0	309.4	309.1	309.2	308.1	308.2	308.2	308.2	308.3	307.9	308.1		
43	***	***	1.754	***	309.3	309.1	309.9	309.3	309.0	309.1	307.9	308.1	308.0	308.0	308.1	307.8	308.1		
46	***	***	1.757	***	308.8	308.4	309.3	308.8	308.7	308.6	307.3	307.3	307.1	307.3	307.5	306.9	307.3		
53	***	***	1.755	***	308.5	308.0	308.7	308.4	308.4	308.2	306.8	306.8	306.6	306.6	307.1	306.4	306.8		
58	***	***	1.760	***	308.2	307.5	308.2	308.0	308.0	307.9	306.5	306.6	306.4	306.2	306.7	305.9	306.4		
63	***	***	1.750	***	308.0	307.3	307.9	307.8	307.8	307.6	306.0	306.0	305.9	306.0	306.4	305.4	305.9		
68	***	***	1.752	***	307.6	306.9	307.6	307.4	307.5	307.3	305.8	305.8	305.7	305.7	305.9	305.2	305.7		
73	***	***	1.749	***	307.4	306.6	307.4	307.0	307.0	307.1	305.4	305.3	305.3	305.3	305.8	304.9	305.2		
78	***	***	1.749	***	307.0	306.3	307.0	306.6	306.7	306.7	305.1	305.0	305.2	305.3	305.5	304.6	304.9		
83	***	***	1.750	***	306.8	306.2	306.8	306.6	306.6	306.6	304.9	304.8	304.9	305.1	305.2	304.5	304.8		
88	***	***	1.752	***	306.7	306.1	306.6	306.4	306.6	306.6	304.6	304.6	304.7	305.0	305.1	304.4	304.6		
93	***	***	1.753	***	306.6	305.9	306.6	306.3	306.4	306.4	304.6	304.6	304.6	304.9	304.9	304.3	304.5		
103	***	***	1.749	***	306.2	305.7	306.2	305.9	306.3	305.9	304.4	304.4	304.4	304.6	304.6	304.2	304.4		
113	***	***	1.755	***	305.9	305.6	306.1	305.7	305.9	305.9	304.2	304.2	304.0	304.5	304.5	304.0	304.1		
123	***	***	1.751	***	305.8	305.4	306.1	305.5	305.5	305.9	304.0	304.1	303.9	304.5	304.2	303.9	304.0		
133	***	***	1.746	***	305.8	305.3	305.9	305.4	306.1	305.8	303.9	303.9	303.8	304.4	304.0	303.9	303.9		
143	***	***	1.755	***	305.7	305.3	305.9	305.3	305.9	305.8	303.8	303.8	303.8	304.3	303.9	303.8	303.8		
153	***	***	1.755	***	305.5	305.2	305.9	305.2	305.9	305.7	303.8	303.8	303.6	304.3	303.8	303.8	303.7		
163	***	***	1.752	***	305.5	305.2	305.8	305.2	305.9	305.7	303.8	303.6	303.6	304.1	303.9	303.8	303.6		
173	***	***	1.746	***	305.4	305.2	305.9	305.1	305.9	305.6	303.7	304.2	303.3	303.8	306.2	303.8	303.6		
183	***	***	1.733	***	305.3	305.1	305.8	305.1	305.9	305.5	303.6	303.6	303.5	304.2	303.8	303.6	303.8		
193	***	***	1.740	***	305.3	305.1	305.8	305.0	305.7	305.5	303.5	303.5	303.5	304.0	303.7	303.7	303.6		
203	***	***	1.745	***	305.2	305.0	305.7	305.0	305.5	305.4	303.4	303.4	303.4	303.9	303.6	303.5	303.6		

Table 10I — Scaling Run 208, Test Configuration 1: One 1.52 cm Nozzle

5 C METER CHAMBER, OBSTRUCTED GAS MIXING RUN 208													
PRESSURE, FILL- THERMOCOUPLES													
LOCATION 1													
T (DEC K)													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13
(SEC)(BAR)(DEC K)	(BAR)	(BAR)	(DEC K)	(DEC K)	(DEC K)	(DEC K)	(DEC K)	(DEC K)	(DEC K)	(DEC K)	(DEC K)	(DEC K)	(DEC K)
-5	0.297	0.297	0.297	0.297	0.297	0.297	0.296	0.296	0.293	0.296	0.296	0.296	0.296
-4	0.297	0.297	0.297	0.297	0.297	0.297	0.296	0.296	0.296	0.296	0.296	0.296	0.296
-3	0.297	0.297	0.297	0.297	0.297	0.297	0.296	0.296	0.293	0.296	0.296	0.296	0.296
-2	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
-1	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
0	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
1	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
2	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
3	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
4	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
5	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
6	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
7	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
8	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
9	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
10	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
11	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
12	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
13	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
14	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
15	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
16	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
17	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
18	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
19	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
20	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
21	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
22	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
23	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
24	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
25	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
26	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
27	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
28	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
29	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
30	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
31	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
32	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
33	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
34	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
35	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
36	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
37	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
38	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296
39	0.297	0.297	0.297	0.297	0.297	0.298	0.296	0.296	0.293	0.296	0.296	0.296	0.296

(Table continues)

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Table 10J — Scaling Run 209, Test Configuration 1: One 1.52 cm Nozzle

3 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 209																				
TIME (SEC)	P (BAR)	THERMOCOUPLES																	COORDINATES	
		LOCATION 1																	R (M)	THETA Z (DEG)
		T (DEG K)																		
		1	2	3	4	5	6	7	8	9	10	11	12	13						
-5	1.060	298.5	298.4	298.3	298.4	297.8	298.5	297.5	296.9	296.6	297.4	297.5	298.0	298.0	1	0.229	00	0.152		
-4	1.043	298.6	298.4	298.2	298.4	297.8	298.4	296.9	296.7	296.4	297.4	296.9	296.7	296.9	2	0.229	00	0.000		
-3	1.062	298.5	298.4	298.4	298.4	297.8	298.5	296.8	296.7	296.4	297.4	297.0	296.8	296.8	3	0.076	00	0.152		
-2	1.040	298.6	298.4	298.3	298.4	297.8	298.5	296.8	296.7	296.4	297.4	296.8	296.7	296.8	4	0.102	00	0.076		
-1	1.062	298.5	298.4	298.4	298.4	297.8	298.5	296.7	296.6	296.3	297.3	297.0	296.8	296.8	5	0.076	00	-0.076		
0	1.040	298.6	298.4	298.3	298.4	297.8	298.5	296.8	296.7	296.4	297.4	296.8	296.7	296.8	6	0.152	00	0.152		
1	1.065	298.5	299.3	299.4	299.4	298.7	299.5	296.7	296.6	296.3	297.3	296.9	296.7	296.7	7	0.229	00	0.762		
2	1.062	298.7	299.3	299.4	299.3	298.7	299.5	297.5	297.3	297.0	298.2	297.8	297.8	297.8	8	0.229	00	0.991		
3	1.125	301.9	301.7	299.9	301.9	300.7	302.2	299.6	300.8	299.6	300.6	300.6	300.6	299.7	9	0.076	00	0.076		
4	1.130	303.7	303.6	302.1	303.7	303.6	302.4	304.1	301.4	302.5	301.4	302.0	302.0	301.9	10	0.229	00	-0.076		
5	1.179	304.5	304.5	302.8	304.6	303.5	304.8	302.6	303.6	302.6	303.3	303.2	303.1	302.8	11	0.152	00	0.762		
6	1.180	305.2	305.2	303.8	305.2	304.0	305.3	303.3	304.4	303.3	304.4	304.3	304.1	303.9	12	0.229	00	0.914		
7	1.190	305.9	306.0	304.9	306.0	304.7	306.0	304.5	305.0	304.2	304.5	304.7	304.8	304.8	13	0.229	00	0.030		
8	1.216	306.3	306.5	305.9	306.6	305.3	306.6	304.8	305.3	304.6	305.2	305.1	305.1	305.2						
9	1.271	306.6	306.6	306.2	306.6	305.3	306.6	304.8	305.3	304.6	305.2	305.1	305.1	305.2						
10	1.284	306.9	307.0	306.7	307.1	305.9	306.8	306.6	306.6	306.6	306.6	306.6	306.6	306.6						
11	1.315	307.0	307.2	307.0	307.2	305.9	307.1	306.7	306.6	306.6	306.6	306.6	306.6	306.6						
12	1.342	307.1	307.3	307.3	307.3	305.9	307.1	306.8	307.1	306.6	307.1	306.6	307.1	306.6						
13	1.379	307.2	307.3	307.3	307.3	306.0	307.0	306.8	307.1	306.6	307.1	306.6	307.1	306.6						
14	1.389	307.1	307.4	307.4	307.4	305.9	307.0	306.7	306.9	306.9	307.3	307.4	307.3	307.4						
15	1.394	307.1	307.4	307.5	307.4	305.9	307.0	306.7	306.9	306.9	307.3	307.4	307.3	307.4						
16	1.417	307.1	307.3	307.4	307.4	305.9	306.9	306.9	306.9	306.9	306.9	306.9	306.9	306.9						
17	1.446	307.0	307.2	307.3	307.3	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
18	1.446	307.0	307.1	307.3	307.3	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
19	1.476	307.0	307.1	307.3	307.3	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
20	1.504	306.9	307.1	307.1	307.1	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
21	1.515	306.8	307.0	307.1	307.0	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
22	1.549	306.8	307.0	307.1	307.0	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
23	1.544	306.8	306.9	307.0	307.0	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
24	1.593	306.8	306.8	307.0	307.0	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
25	1.579	306.7	306.8	307.0	306.8	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
26	1.627	306.6	306.7	306.8	306.8	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
27	1.630	306.6	306.6	306.8	306.7	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
28	1.667	306.6	306.6	306.8	306.6	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
29	1.665	306.6	306.6	306.8	306.6	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
30	1.705	306.5	306.6	306.7	306.6	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
31	1.697	306.4	306.6	306.8	306.6	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
32	1.724	306.4	306.6	306.6	306.6	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
33	1.748	306.4	306.3	306.6	306.6	305.9	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8						
34	1.736	306.3	306.3	306.3	306.4	304.8	306.4	304.8	306.4	304.8	306.4	304.8	306.4	304.8						
35	1.759	306.2	306.3	306.3	306.4	304.7	305.9	304.9	304.9	304.9	304.9	304.9	304.9	304.9						
36	1.781	306.2	306.0	306.3	306.2	304.7	305.9	304.9	304.9	304.9	304.9	304.9	304.9	304.9						
37	1.765	305.9	305.8	306.1	305.9	304.7	305.9	304.9	304.9	304.9	304.9	304.9	304.9	304.9						
38	1.748	305.7	305.5	306.0	305.7	304.7	305.9	304.9	304.9	304.9	304.9	304.9	304.9	304.9						
39	1.770	305.4	305.3	305.9	305.4	304.7	305.9	304.9	304.9	304.9	304.9	304.9	304.9	304.9						

(Table continues)

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Table 10K — Scaling Run 210, Test Configuration 1: One 1.52 cm Nozzle

TIME (SEC)	PRESSURANT FOR - TOTAL P (BAR)	TANK P (BAR)	THERMOCOUPLES LOCATION I (DEG K)	COORDINATES												
				1	2	3	4	5	6	7	8	9	10	11	12	13
-5	...	...	...	299.0	298.8	298.8	298.8	298.2	299.0	297.3	297.1	296.8	297.8	297.4	297.2	297.3
-4	...	...	...	299.0	298.8	298.8	298.8	298.2	299.0	297.3	297.1	296.8	297.8	297.4	297.2	297.3
-3	...	...	...	299.0	298.8	298.8	298.8	298.2	299.0	297.3	297.1	296.8	297.8	297.4	297.2	297.3
-2	...	...	...	299.0	298.8	298.8	298.8	298.2	299.0	297.3	297.1	296.8	297.8	297.4	297.2	297.3
-1	...	...	...	299.0	298.8	298.8	298.8	298.2	299.0	297.3	297.1	296.8	297.8	297.4	297.2	297.3
0	6.377	299.5	...	299.0	298.8	298.8	298.8	298.2	299.0	297.3	297.1	296.8	297.8	297.4	297.2	297.3
1	6.387	299.5	...	299.0	298.8	298.8	298.8	298.2	299.0	297.3	297.1	296.8	297.8	297.4	297.2	297.3
2	6.299	302.4	...	299.5	299.0	298.8	298.8	298.2	299.5	297.4	297.2	296.9	297.5	297.3	297.2	297.2
3	6.164	297.6	...	301.1	300.9	299.5	300.9	300.0	301.5	299.5	299.4	299.1	299.7	298.8	297.5	297.6
4	6.027	299.0	...	303.2	302.8	301.1	303.0	301.8	303.5	301.5	302.5	301.3	302.0	302.2	302.1	301.7
5	5.953	296.9	...	304.6	304.4	302.8	304.5	303.5	304.9	302.5	303.6	302.4	303.0	303.3	303.0	303.0
6	5.811	296.3	...	305.4	305.2	303.8	305.3	304.5	305.9	303.2	304.3	303.6	304.0	304.3	304.0	304.0
7	5.711	295.7	...	306.2	306.2	304.9	306.2	305.2	306.6	304.5	305.2	304.4	304.9	304.9	304.8	304.6
8	5.597	295.2	...	306.6	306.6	305.9	306.8	305.6	306.8	304.5	305.2	304.4	304.9	304.9	304.8	304.6
9	5.479	294.8	...	306.9	307.1	306.4	307.1	306.0	307.1	305.5	306.1	305.1	305.8	305.7	305.4	305.3
10	5.389	294.5	...	307.3	307.4	307.0	307.5	306.3	307.3	305.7	306.2	305.4	306.1	306.1	305.9	305.8
11	5.297	294.1	...	307.5	307.6	307.4	307.6	306.3	307.4	306.0	306.3	305.4	306.1	306.1	305.9	305.8
12	5.187	293.9	...	307.6	307.7	307.5	307.7	306.3	307.4	306.0	306.3	305.4	306.1	306.1	305.9	305.8
13	5.091	293.7	...	307.6	307.7	307.5	307.7	306.3	307.4	306.0	306.3	305.4	306.1	306.1	305.9	305.8
14	5.004	293.2	...	307.6	307.7	307.5	307.7	306.3	307.4	306.0	306.3	305.4	306.1	306.1	305.9	305.8
15	4.929	293.1	...	307.6	307.7	307.5	307.7	306.3	307.4	306.0	306.3	305.4	306.1	306.1	305.9	305.8
16	4.851	292.9	...	307.6	307.7	307.5	307.7	306.3	307.4	306.0	306.3	305.4	306.1	306.1	305.9	305.8
17	4.744	292.6	...	307.6	307.7	307.5	307.7	306.3	307.4	306.0	306.3	305.4	306.1	306.1	305.9	305.8
18	4.674	292.4	...	307.6	307.7	307.5	307.7	306.3	307.4	306.0	306.3	305.4	306.1	306.1	305.9	305.8
19	4.572	292.2	...	307.5	307.7	307.5	307.7	306.3	307.4	306.0	306.3	305.4	306.1	306.1	305.9	305.8
20	4.549	291.9	...	307.5	307.7	307.5	307.7	306.3	307.4	306.0	306.3	305.4	306.1	306.1	305.9	305.8
21	4.444	291.6	...	307.5	307.7	307.5	307.7	306.3	307.4	306.0	306.3	305.4	306.1	306.1	305.9	305.8
22	4.358	291.3	...	307.4	307.5	307.6	307.5	307.2	307.2	306.2	306.1	306.0	306.4	306.3	306.2	306.4
23	4.288	291.2	...	307.3	307.5	307.7	307.5	307.2	307.2	306.2	306.1	306.0	306.4	306.3	306.2	306.4
24	4.221	291.0	...	307.3	307.4	307.6	307.5	307.2	307.2	306.2	306.1	306.0	306.4	306.3	306.2	306.4
25	4.184	290.9	...	307.2	307.4	307.6	307.5	307.2	307.2	306.2	306.1	306.0	306.4	306.3	306.2	306.4
26	4.090	290.5	...	307.1	307.4	307.5	307.4	307.0	307.0	306.0	305.9	305.7	306.2	306.1	306.0	306.0
27	4.024	290.2	...	307.1	307.4	307.5	307.4	307.0	307.0	306.0	305.9	305.7	306.2	306.1	306.0	306.0
28	3.959	290.1	...	307.1	307.4	307.5	307.4	307.0	307.0	306.0	305.9	305.7	306.2	306.1	306.0	306.0
29	3.881	289.2	...	307.0	307.3	307.4	307.3	306.9	306.9	305.9	305.8	305.6	306.0	305.9	305.8	305.8
30	3.831	289.9	...	306.9	307.1	307.3	307.2	306.8	306.8	305.8	305.7	305.5	305.9	305.8	305.7	305.8
31	3.763	289.8	...	306.8	307.0	307.3	307.1	306.7	306.7	305.7	305.6	305.4	305.9	305.8	305.7	305.8
32	3.724	289.8	...	306.8	307.0	307.3	307.1	306.7	306.7	305.7	305.6	305.4	305.9	305.8	305.7	305.8
33	3.682	289.5	...	306.8	307.0	307.3	307.1	306.7	306.7	305.7	305.6	305.4	305.9	305.8	305.7	305.8
34	3.610	289.3	...	306.8	307.0	307.3	307.1	306.7	306.7	305.7	305.6	305.4	305.9	305.8	305.7	305.8
35	3.579	289.1	...	306.7	306.9	307.0	306.8	306.5	306.5	305.6	305.5	305.3	305.9	305.8	305.7	305.8
36	3.564	284.0	...	306.6	306.7	306.9	306.8	306.5	306.5	305.6	305.5	305.3	305.9	305.8	305.7	305.8
37	...	...	...	306.4	306.4	306.8	306.5	306.3	306.2	305.3	305.2	305.0	305.9	305.8	305.7	305.8
38	...	...	...	306.2	306.2	306.6	306.3	306.1	306.0	305.0	304.9	304.8	305.2	305.1	304.8	305.0
39	...	...	...	306.0	305.9	306.4	306.1	305.9	305.8	304.8	304.7	311.3	311.6	310.9	304.5	305.0

(Table continues)

Table 10K — Scaling Run 210, Test Configuration 1: One 1.52 cm Nozzle (Continued)

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107														
PRESSURANT FILL- FON - TOTAL			THERMOCOUPLES LOCATION T			T (DEG K)			T (DEG K)			T (DEG K)		
TIME	P	T	P	T	P	1	2	3	4	5	6	7	8	9
(SEC)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	1	2	3	4	5	6	7	8	9
40	1.773	...	...	305.9	305.7	306.2	305.8	305.1	305.7	304.7	304.7	304.5
41	1.748	...	...	305.8	305.6	306.1	305.7	305.1	305.7	304.7	304.7	304.9
42	1.749	...	...	305.7	305.4	305.9	305.6	305.0	305.5	304.4	304.2	304.5
43	1.720	...	...	305.5	305.2	305.8	305.5	304.9	305.3	304.1	304.0	304.5
44	1.737	...	...	305.4	305.1	305.7	305.4	304.8	305.2	304.0	303.9	304.1
45	1.764	...	...	304.8	304.2	305.0	304.7	304.5	304.5	303.5	303.1	303.4
46	1.757	...	...	304.4	303.6	304.2	304.1	303.9	303.9	303.0	303.1	303.3
47	1.757	...	...	303.8	303.1	303.8	303.6	303.4	303.5	302.9	303.0	302.6
48	1.781	...	...	303.5	302.9	303.4	303.3	303.0	303.1	302.2	301.9	301.7
49	1.776	...	...	303.1	302.6	303.1	303.0	302.7	302.9	302.5	302.7	302.4
50	1.771	...	...	303.1	302.5	302.8	302.9	302.6	302.9	301.5	302.0	301.9
51	1.758	...	...	303.0	302.5	302.6	302.7	302.5	302.7	302.0	301.3	301.8
52	1.781	...	...	302.9	302.4	302.6	302.6	302.3	302.6	300.9	301.2	300.5
53	1.761	...	...	302.7	302.2	302.4	302.4	302.4	302.4	300.7	300.8	301.4
54	1.735	...	...	302.6	302.0	302.4	302.2	302.3	302.3	300.7	300.4	301.0
55	1.777	...	...	302.3	301.8	302.2	301.9	302.0	302.1	300.4	300.1	300.9
56	1.750	...	...	302.0	301.5	302.0	301.6	301.8	301.9	300.4	300.0	300.8
57	1.739	...	...	301.8	301.3	301.8	301.3	301.5	301.8	300.0	299.9	300.4
58	1.743	...	...	301.7	301.2	301.7	301.2	301.3	301.7	299.8	299.7	300.2
59	1.761	...	...	301.5	301.2	301.7	301.2	301.6	301.6	299.8	299.7	300.2
60	1.756	...	...	301.5	301.0	301.5	301.0	301.2	301.5	299.7	299.5	300.0
61	1.753	...	...	301.4	301.0	301.4	300.9	301.3	301.5	299.7	299.5	300.0
62	1.761	...	...	301.3	300.9	301.2	300.9	301.0	301.5	299.8	299.5	300.1
63	1.738	...	...	301.4	300.9	301.2	300.9	301.2	301.5	299.5	299.3	300.2
64	1.765	...	...	301.2	300.9	301.2	300.8	301.2	301.3	299.5	299.3	300.1
65	1.738	...	...	301.3	300.9	301.2	300.9	301.1	301.3	299.3	299.3	300.0
66	1.746	...	...	301.2	300.9	301.2	300.8	301.0	301.2	299.5	299.5	300.2
67	1.754	...	...	301.2	300.9	301.2	300.8	301.0	301.2	299.5	299.4	300.1
68	1.735	...	...	301.2	300.9	301.2	300.8	301.0	301.2	299.5	299.5	300.2
69	1.759	...	...	301.2	300.9	301.2	300.8	301.0	301.2	299.5	299.5	300.2
70	1.756	...	...	301.0	300.9	301.2	300.8	301.0	301.2	299.5	299.5	300.2

Table 10L — Scaling Run 211, Test Configuration 1: One 1.52 cm Nozzle

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 211													COORDINATES				
PRESSURANT FILL- THERMOCOUPLES																	
FOU - TOTAL, TANK LOCATION I																	
TIME (SEC) (BAR) (DEC K) (BAR) (BAR) (DEC K) (BAR) (BAR) (DEC K)																	
P T P T P T P T P T P T P T																	
1 2 3 4 5 6 7 8 9 10 11 12 13																	
-5	1.052	300.7	300.6	300.6	299.9	300.6	299.0	298.8	298.5	299.2	298.9	299.0	1	R	THETA Z		
-4	1.052	300.7	300.5	300.4	300.6	299.9	300.6	299.0	298.8	298.5	299.2	299.0	2	(M)	(DEC)	(M)	0.229 0.0 0.152
-3	1.052	300.7	300.4	300.4	300.5	299.9	300.5	299.0	298.8	298.5	299.2	299.0	3				0.229 0.0 0.000
-2	1.063	300.7	300.4	300.4	300.6	299.9	300.6	299.0	298.8	298.5	299.2	299.0	4				0.076 0.0 0.152
-1	1.065	300.7	300.4	300.4	300.6	299.9	300.5	299.0	298.8	298.5	299.2	299.0	5				0.102 0.0 0.076
0	6.279	299.4	300.8	300.5	300.6	300.2	300.8	299.5	300.5	299.7	299.8	299.8	6				0.076 0.0 -0.076
1	6.164	300.2	301.3	302.1	302.2	302.1	303.6	301.2	302.2	301.2	302.2	301.2	7				0.152 0.0 0.152
2	6.034	292.0	303.3	302.1	301.5	302.2	302.1	303.6	301.2	302.2	301.2	302.2	8				0.229 0.0 0.152
3	5.942	296.6	303.2	304.9	303.1	305.2	304.2	305.7	303.2	304.2	303.0	304.0	9				0.229 0.0 0.076
4	5.792	295.8	306.2	306.1	304.2	306.3	305.2	306.5	304.7	305.4	304.5	305.2	10				0.076 0.0 -0.076
5	5.667	289.1	307.4	307.4	305.7	307.5	306.3	307.6	305.6	306.5	305.5	306.3	11				0.229 0.0 0.152
6	5.609	288.8	308.7	308.8	307.0	308.5	307.6	308.8	307.3	307.5	306.6	307.4	12				0.229 0.0 0.152
7	5.474	288.4	309.1	309.2	308.5	309.3	308.0	309.1	307.5	307.5	307.1	307.5	13				0.229 0.0 0.152
8	5.368	288.0	309.3	309.4	308.9	309.4	308.6	309.4	307.7	308.0	307.5	308.1					
9	5.262	287.8	309.4	309.5	309.3	309.7	308.4	309.4	308.0	308.1	307.7	308.4					
10	5.176	287.5	309.5	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
11	5.061	287.2	309.6	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
12	4.953	286.9	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
13	4.815	286.5	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
14	4.827	286.2	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
15	4.722	286.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
16	4.631	285.8	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
17	4.538	285.5	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
18	4.493	285.2	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
19	4.411	285.1	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
20	4.366	284.7	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
21	4.263	284.6	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
22	4.196	284.2	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
23	4.144	284.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
24	4.063	283.9	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
25	3.952	283.8	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
26	3.932	283.7	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
27	3.867	283.5	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
28	3.827	283.2	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
29	3.771	283.2	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
30	3.701	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
31	3.647	283.2	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
32	3.582	282.9	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
33	3.566	288.4	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
34	3.577	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
35	3.500	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
36	3.447	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
37	3.382	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
38	3.311	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
39	3.244	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
40	3.173	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
41	3.102	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
42	3.031	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
43	2.960	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
44	2.889	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
45	2.818	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
46	2.747	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
47	2.676	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
48	2.605	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
49	2.534	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
50	2.463	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
51	2.392	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
52	2.321	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
53	2.250	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
54	2.179	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
55	2.108	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
56	2.037	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
57	1.966	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
58	1.895	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
59	1.824	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
60	1.753	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
61	1.682	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
62	1.611	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
63	1.540	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
64	1.469	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
65	1.398	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
66	1.327	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
67	1.256	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
68	1.185	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4	308.0	308.5					
69	1.114	283.0	309.7	309.7	309.5	309.7	308.4	309.4	308.2	308.4</							

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Table 11A — Inferred Pressurant Distribution, Scaling Run 200: Test Configuration 1

INFERRED PRESSURANT DISTRIBUTION - S C METER CHAMBER OBSTRUCTED GAS MINI												
TIME TEMPERATURE (SEC) MEAN AIR PRESSURANT		BETA BETA/TSTAR PRESSURANT FRACTION MEAN I = 1										
		2	3	4	5	6	7	8	9	10	11	12
COMENCE VALVE OPENING		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.0 30.6 30.7 23.0		0.03	0.35	0.99	0.99	0.99	0.41	0.35	0.00	0.00	0.00	0.00
VALVE FULLY OPEN		-576.2	-2.0076									
2.0 32.0 32.9 26.1		-160.8	-1.5419	0.03	0.18	0.28	-0.12	0.76	-0.27	0.47	-0.14	-0.12
3.0 34.4 34.5 25.4		-61.1	-0.4752	-0.15	-0.36	0.24	-0.58	0.18	-0.36	0.84	-0.38	0.51
4.0 35.8 36.5 26.4		36.6	1.8492	0.69	0.49	0.28	0.59	0.99	0.49	0.89	-0.11	0.79
5.0 36.0 37.6 26.3		-31.8	-1.724	0.74	0.72	0.43	1.89	0.63	0.99	0.94	0.09	0.81
6.0 37.2 38.9 27.1		21.8	0.5923	0.99	1.18	1.01	1.86	1.10	1.10	1.10	0.42	1.10
7.0 38.2 39.7 28.2		27.0	1.1414	1.36	1.33	1.35	2.13	1.35	1.79	1.44	0.83	1.27
8.0 38.3 39.7 27.7		31.1	-0.7399	1.36	1.11	1.11	1.61	1.20	1.53	1.36	1.20	1.03
9.0 38.7 40.5 28.6		24.7	0.9319	1.48	1.70	1.45	1.95	1.45	1.70	1.86	1.45	0.94
10.0 38.9 40.9 29.3		25.5	0.8105	1.74	1.92	1.58	1.92	1.67	2.44	1.92	1.75	1.49
11.0 39.0 41.1 29.3		60.5	-0.7535	1.73	2.04	1.62	1.79	1.70	2.13	2.04	1.53	1.45
12.0 39.2 41.5 30.0		24.7	0.8361	2.01	2.25	1.90	2.08	1.99	2.28	2.43	1.81	1.90
13.0 39.1 41.4 30.0		110.9	0.301	2.01	2.18	1.92	1.92	1.92	2.24	2.33	1.83	1.93
14.0 39.1 41.5 30.5		25.2	0.6523	2.22	2.50	2.05	2.05	2.14	2.86	2.68	2.05	2.23
15.0 39.2 41.6 30.4		30.7	-1.444	2.18	2.45	2.10	2.10	2.10	2.90	2.63	2.19	2.10
16.0 39.1 41.6 30.0		26.4	0.6438	2.37	2.73	2.18	2.27	2.27	3.19	2.82	2.18	2.27
17.0 39.0 41.6 31.1		26.6	0.5401	2.52	2.81	2.33	2.24	2.43	3.37	2.90	2.33	2.43
18.0 38.9 41.7 31.2		26.1	0.3043	2.61	2.87	2.48	2.39	2.58	3.34	3.06	2.39	2.48
19.0 38.9 41.7 31.5		26.1	0.5299	2.76	3.07	2.58	2.58	2.67	3.56	3.26	2.48	2.58
20.0 38.8 41.6 31.5		15.9	-0.0285	2.74	2.99	2.70	2.60	2.60	3.58	3.19	2.50	2.50
21.0 38.9 41.9 31.8		23.5	0.4866	2.89	3.37	2.97	3.07	3.07	3.56	3.37	2.67	2.67
22.0 38.9 41.9 32.0		26.4	0.5356	3.03	3.43	3.12	3.02	3.12	4.14	3.63	2.21	3.02
23.0 38.7 41.7 31.9		-25.8	0.0289	3.02	3.38	2.97	2.97	2.97	4.00	3.59	2.56	2.97
24.0 38.8 41.9 32.3		24.5	0.6105	3.20	3.64	3.33	3.33	3.33	4.37	3.96	3.02	2.61
25.0 38.7 41.8 32.3		30.3	0.2189	3.25	3.78	3.36	3.36	3.36	4.31	3.89	3.15	3.25
26.0 38.5 41.5 32.3		35.4	0.2435	3.29	3.60	3.17	3.17	3.17	4.25	3.71	2.95	3.06
27.0 38.6 41.7 32.4		23.2	0.2338	3.36	3.78	3.45	3.56	3.45	4.43	3.99	2.58	3.34
28.0 38.4 41.5 32.5		29.2	0.3841	3.45	3.72	3.39	3.28	3.39	4.27	3.83	3.16	3.28
29.0 38.6 41.8 32.7		20.7	0.2343	3.52	4.01	3.79	3.79	3.79	4.28	4.23	1.92	3.66
30.0 38.3 41.5 32.7		34.9	0.3632	3.59	3.85	3.51	3.51	3.51	4.53	4.19	3.28	3.28
31.0 38.3 41.5 32.8		26.0	0.3619	3.68	3.97	3.74	3.74	3.74	4.66	4.31	3.28	3.28
COMENCE VALVE CLOSURE												
32.0 38.3 41.5 32.8		25.3	-1.166	3.65	4.04	3.69	3.81	4.38	4.27	3.23	3.38	3.35
33.0 38.3 41.4 33.1		133.6	0.4653	3.75	4.09	3.73	3.73	3.85	4.81	4.21	3.49	3.61
VALVE FULLY CLOSED												
34.0 38.4 41.4 33.7		137.6	0.5500	3.87	4.47	4.08	4.08	4.21	4.99	4.73	3.95	4.08
35.0 35.1 37.2 31.9		350.7	1.2242	3.87	4.59	4.03	3.65	4.03	5.35	4.97	3.28	3.09
36.0 37.6 40.3 33.2		-276.2	-0.9641	3.87	4.32	4.03	3.61	4.17	4.74	4.60	3.89	3.61
37.0 34.8 36.7 31.7		324.6	1.1331	3.87	4.42	4.02	3.23	4.22	4.62	4.62	3.62	3.82
38.0 35.0 38.1 32.3		-141.8	-0.4950	3.87	4.45	4.28	3.76	4.11	4.88	4.80	3.07	2.39
39.0 36.2 38.5 32.4		-41.8	-1.4598	3.87	4.66	4.66	4.00	4.66	4.82	4.99	2.51	3.83
40.0 35.8 38.1 32.3		41.8	1.1458	3.87	4.45	4.62	3.94	4.45	4.62	4.80	2.56	2.90
41.0 37.6 40.3 33.3		-187.0	-0.6527	3.87	4.47	4.47	3.90	4.47	4.76	4.76	3.90	3.62
42.0 35.8 38.1 32.3		806.9	2.8165	3.87	4.08	4.25	3.56	4.08	4.08	4.43	3.22	4.08
43.0 31.6 32.3 30.5		969.8	-3.3831	3.87	3.82	3.82	2.10	3.25	3.25	4.98	2.68	3.82
44.0 38.4 40.9 34.5		328.0	1.1450	3.87	4.03	4.03	3.40	3.87	3.71	4.50	3.56	4.03
45.0 35.3 37.0 32.5		-65.5	-2.286	3.87	4.02	4.24	3.36	3.80	3.58	4.69	3.80	3.80
46.0 32.8 33.9 31.1		430.3	1.5020	3.87	3.63	3.98	2.57	3.63	3.27	4.68	1.63	3.63
47.0 35.5 37.2 32.6		-451.4	-1.5755	3.87	4.12	4.74	3.47	4.12	3.47	4.56	3.68	4.34
48.0 36.0 37.9 33.0		88.7	0.3026	3.87	3.89	3.89	3.27	3.68	3.07	4.29	3.39	4.09
49.0 35.3 37.0 32.5		-65.5	-2.286	3.87	3.61	4.06	3.17	3.61	2.94	4.28	3.39	4.06
50.0 34.2 39.1 33.1		-109.2	-0.3811	3.87	3.65	4.05	3.05	3.65	3.05	4.25	3.05	3.85

(Table continues)

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Table 11B — Inferred Pressurant Distribution, Scaling Run 202: Test Configuration 1

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS M1												
TIME TEMP(DEC C)		BETA BETA/ISTAR PRESSURANT FRACTION										
(SEC) MEAN AIR PRESSURANT		MEAN I = 1										
		1	2	3	4	5	6	7	8	9	10	11
		12	13									
COMMENCE VALVE OPENING		0.0	10.8	30.8	106.3	-1.9	0.0000	0.000	0.000	0.000	0.000	0.000
VALVE FULLY OPEN		1.0	31.0	30.8	24.0	4837	6-05.1246	0.000	-0.014	0.000	0.000	0.000
		2.0	32.8	30.0	128.9	184.6	8.5567	0.028	0.028	0.014	0.028	0.028
		3.0	34.9	33.2	63.6	39.8	1.2280	0.052	0.052	0.052	0.052	0.052
		4.0	36.4	31.4	75.6	405.1	-1.8888	0.056	0.056	0.056	0.056	0.056
		5.0	37.4	36.3	47.4	31.1	1.2637	0.054	0.054	0.054	0.054	0.054
		6.0	38.0	37.0	47.5	-38.1	-1.1162	0.063	0.063	0.063	0.063	0.063
		7.0	38.6	38.2	41.8	23.3	5.4800	0.117	0.117	0.117	0.117	0.117
		8.0	39.1	39.2	38.8	22.3	4.841	0.136	0.136	0.136	0.136	0.136
		9.0	39.4	39.8	37.2	22.8	3.383	0.150	0.150	0.150	0.150	0.150
		10.0	39.6	40.3	36.0	22.8	3.725	0.164	0.164	0.164	0.164	0.164
		11.0	39.7	40.8	34.8	20.3	6.266	0.184	0.184	0.184	0.184	0.184
		12.0	39.8	41.0	34.6	20.1	0.989	0.188	0.188	0.188	0.188	0.188
		13.0	39.8	41.2	34.2	25.3	3.377	0.199	0.199	0.199	0.199	0.199
		14.0	39.8	41.5	33.6	25.7	7.129	0.221	0.221	0.221	0.221	0.221
		15.0	39.8	41.6	33.6	22.3	0.308	0.222	0.222	0.222	0.222	0.222
		16.0	39.7	41.8	33.3	26.1	6.693	0.242	0.242	0.242	0.242	0.242
		17.0	39.7	42.0	33.2	25.5	5.129	0.257	0.257	0.257	0.257	0.257
		18.0	39.7	41.9	33.1	10.5	-0.123	0.256	0.256	0.256	0.256	0.256
		19.0	39.6	42.0	33.1	26.1	5.875	0.272	0.272	0.272	0.272	0.272
		20.0	39.5	42.0	33.1	32.6	0.710	0.274	0.274	0.274	0.274	0.274
		21.0	39.5	42.1	33.1	26.5	6.374	0.291	0.291	0.291	0.291	0.291
		22.0	39.4	42.1	33.2	27.1	6.895	0.309	0.309	0.309	0.309	0.309
		23.0	39.3	42.0	33.1	25.6	-2.935	0.316	0.316	0.316	0.316	0.316
		24.0	39.2	42.1	33.2	28.0	3.941	0.316	0.316	0.316	0.316	0.316
		25.0	39.2	42.1	33.3	27.9	-4.146	0.326	0.326	0.326	0.326	0.326
		26.0	39.2	42.1	33.3	27.4	2.228	0.331	0.331	0.331	0.331	0.331
		27.0	39.1	42.1	33.4	27.4	5.967	0.345	0.345	0.345	0.345	0.345
		28.0	39.2	42.1	33.3	27.9	-4.146	0.353	0.353	0.353	0.353	0.353
		29.0	39.3	42.4	33.5	25.0	6.739	0.363	0.363	0.363	0.363	0.363
		30.0	39.2	42.4	33.6	27.3	4.263	0.363	0.363	0.363	0.363	0.363
		31.0	39.1	42.3	33.6	4.2	-0.040	0.363	0.363	0.363	0.363	0.363
COMMENCE VALVE CLOSURE		32.0	39.2	42.4	33.7	24.4	3.365	0.371	0.371	0.371	0.371	0.371
VALVE FULLY CLOSED		33.0	39.2	42.4	33.9	-20.2	3.327	0.379	0.379	0.379	0.379	0.379

(Table continues)

Table 11B — Inferred Pressurant Distribution, Sealing Run 202: Test Configuration 1 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME TEMP. DEG C		BETA BETA/TSTAR PRESSURANT FRACTION										
(SEC)		MEAN I = 1										
VALVE FULLY CLOSED												
51.0	41.3	43.0	35.3	10.2	-3166	380	383	363	352	414	363	373
52.0	36.7	39.1	32.8	-81.4	-1.4203	380	485	420	341	420	341	341
53.0	41.1	44.8	35.2	79.2	1.3867	380	407	407	344	397	355	365
54.0	38.8	41.8	33.9	-36.3	-6339	380	403	416	327	403	340	353
55.0	42.7	46.8	36.2	56.5	-9863	380	397	369	341	407	369	350
56.0	39.0	42.1	34.6	-53.5	9331	380	388	413	325	400	363	375
57.0	37.6	40.2	33.2	-27.5	-4789	380	390	419	318	419	347	376
58.0	42.0	45.9	35.7	71.3	-1.2434	380	390	410	331	400	360	380
59.0	36.5	38.9	32.7	-94.0	1.6397	380	390	423	291	407	357	374
60.0	42.4	46.3	36.0	98.0	-1.7093	380	387	406	328	396	367	377
61.0	39.7	42.9	34.5	-37.5	6548	380	381	405	322	405	357	381
62.0	36.5	38.8	32.7	-63.3	1.1039	380	393	423	294	409	343	360
63.0	42.0	45.9	35.8	94.0	-1.6397	380	379	419	330	409	349	369
64.0	38.6	41.6	33.8	-51.1	8918	380	395	447	330	421	356	382
65.0	40.6	44.1	35.0	32.0	-5582	380	384	438	339	416	328	372
66.0	40.8	44.3	35.1	2.6	-0453	380	385	439	320	407	353	374
67.0	37.6	40.2	33.3	-55.2	9623	380	400	472	321	402	357	371
68.0	41.7	45.4	35.6	66.9	-1.1671	380	382	422	328	402	341	382
69.0	40.8	44.3	35.1	-12.3	2145	380	390	422	325	401	347	390
70.0	38.8	41.8	33.9	-31.4	9471	380	384	422	320	409	320	397
71.0	43.5	47.6	36.6	64.5	-1.1232	380	388	416	337	407	316	416
72.0	39.2	42.3	34.1	-58.5	1.0210	380	374	411	327	399	362	411
73.0	42.3	46.3	34.1	0.0	0.0000	380	380	429	306	405	343	392
74.0	43.6	47.9	36.8	60.5	-1.0546	380	373	418	328	391	346	400
75.0	37.9	40.6	33.5	-82.2	1.4346	380	375	431	305	389	361	44
76.0	40.1	43.4	34.7	37.6	-6555	380	377	424	320	377	354	377
77.0	43.1	47.1	36.5	40.4	-7032	380	373	421	326	373	355	392
78.0	38.0	42.0	34.1	-57.6	1.0041	380	385	429	302	365	365	403
79.0	38.3	41.1	33.7	-13.1	2289	380	388	439	290	372	372	385
80.0	42.6	46.3	36.2	64.0	-1.1160	380	373	421	314	373	363	392
81.0	39.0	42.0	34.1	-51.4	8966	380	385	429	289	365	378	391
82.0	36.7	39.0	32.8	-47.5	8277	380	381	442	264	361	378	394
83.0	41.7	45.4	35.6	85.8	-1.4968	380	385	416	304	365	373	396
84.0	38.6	41.6	33.9	-46.6	8132	380	388	420	277	355	381	394
85.0	38.6	41.6	33.9	0.0	0.0000	380	387	432	276	380	380	380
86.0	43.5	47.6	36.7	67.6	-1.1787	380	389	415	305	379	369	379
87.0	40.8	44.3	35.1	-34.0	5927	380	383	418	298	374	374	396
88.0	37.9	40.7	33.5	-48.0	8374	380	384	434	280	378	378	392
89.0	40.8	44.3	35.1	48.0	-8374	380	382	416	296	372	372	394
90.0	42.7	46.7	36.3	25.7	-4489	380	382	410	305	381	372	391
91.0	40.1	43.4	34.7	-36.3	5327	380	385	421	294	386	375	398
92.0	39.2	42.2	34.2	-14.5	2537	380	385	412	289	375	363	388
93.0	37.2	39.7	33.1	-38.2	6664	380	388	423	272	378	363	393
94.0	39.5	42.7	34.4	44.1	-7690	380	371	407	299	383	371	383
95.0	41.5	45.2	35.5	29.1	-5068	380	383	404	311	373	373	383
96.0	42.6	46.3	36.2	13.7	-2350	380	381	401	314	381	372	391
97.0	40.8	44.3	35.1	-23.6	4114	380	379	401	303	379	379	390
98.0	38.6	41.6	33.9	-34.6	6028	380	384	410	297	368	371	384
99.0	36.0	38.1	32.5	-59.3	1.0340	380	380	425	266	372	372	372
100.0	40.2	43.6	34.8	84.4	-1.4718	380	385	417	304	383	350	383

Table 11C — Inferred Pressurant Distribution, Scaling Run 203: Test Configuration 1

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MI												
TIME (SEC)		BETA BETA/ISTAR PRESSURANT FRACTION										
(SEC) MEAN AIR PRESSURANT		MEAN I = 1										
COMMENCE VALVE OPENING		0.0	31.1	31.5	29.7	753.7	5.4482	-1.0	0.0000	0.0000	0.0000	0.0000
VALVE FULLY OPEN		0.0	31.1	31.5	29.7	753.7	5.4482	-1.0	0.0000	0.0000	0.0000	0.0000
2.0	33.3	33.3	32.2	-60.0	-0.7134	0.019	-0.039	1.310	-0.039	382	-545	298
3.0	35.1	35.3	30.8	43.1	1.3929	0.049	1.33	1.31	554	109	198	020
4.0	36.6	37.2	29.6	30.0	1.0114	0.060	1.22	1.05	333	082	161	069
5.0	37.6	38.1	30.1	89.2	-0.7378	0.073	1.06	0.81	243	081	119	044
6.0	38.2	39.3	29.2	29.8	1.2761	0.112	1.34	1.34	233	125	144	115
7.0	38.9	40.3	29.4	21.0	4.208	0.129	1.65	1.66	210	128	183	119
8.0	39.3	41.0	29.6	20.9	3.5459	0.144	1.66	1.68	201	148	201	139
9.0	39.6	41.4	29.5	24.0	4.5337	0.160	1.85	1.77	194	151	220	168
10.0	39.7	41.8	30.2	25.1	5.501	0.178	1.90	1.82	199	173	225	190
11.0	39.9	42.0	30.3	-1.4	-0.025	0.180	2.06	1.97	189	172	257	197
12.0	40.0	42.3	30.6	25.0	5.970	0.199	2.23	2.06	214	197	291	214
13.0	40.1	42.6	31.0	24.1	5.5594	0.217	2.42	2.25	207	216	294	242
14.0	40.0	42.5	30.9	9.6	-0.118	0.236	2.35	2.18	200	209	313	244
15.0	40.0	42.8	31.5	25.0	8.386	0.242	2.63	2.46	237	246	325	272
16.0	39.9	42.7	31.6	27.7	2.559	0.249	2.72	2.45	227	245	362	272
17.0	39.9	42.8	31.8	25.2	3.6653	0.260	2.83	2.56	238	256	347	283
18.0	39.9	42.8	31.9	25.9	2.146	0.266	2.96	2.68	242	269	388	287
19.0	39.8	42.8	32.1	26.9	4.452	0.278	3.00	2.91	263	291	393	300
20.0	39.8	42.8	32.3	26.0	5.054	0.292	3.10	3.00	272	291	395	319
21.0	39.7	42.8	32.3	-20.3	-0.089	0.292	3.12	2.93	274	293	389	322
22.0	39.6	42.8	32.7	26.2	8.531	0.315	3.40	3.20	300	310	428	350
23.0	39.6	42.8	32.7	23.8	-0.298	0.314	3.39	3.08	299	308	417	348
24.0	39.6	42.8	32.9	26.8	4.638	0.326	3.53	3.33	323	334	436	363
25.0	39.5	42.8	33.0	26.7	3.702	0.335	3.69	3.38	318	328	430	369
26.0	39.5	42.7	32.9	16.7	-0.378	0.333	3.60	3.19	329	342	442	370
27.0	39.4	42.8	33.2	26.2	5.975	0.348	3.84	3.53	331	352	478	373
28.0	39.3	42.6	33.1	16.6	-0.639	0.346	3.68	3.37	316	347	484	379
29.0	39.3	42.6	33.3	26.5	6.245	0.361	3.93	3.72	340	361	490	404
30.0	39.3	42.6	33.4	27.3	1.960	0.366	3.96	3.74	352	363	471	396
31.0	39.2	42.6	33.6	27.4	5.666	0.379	4.13	3.97	357	379	490	401
COMMENCE VALVE CLOSURE		32.0	39.2	42.6	33.5	122.9	0.152	4.08	3.75	375	486	420
33.0	39.1	42.4	33.6	22.6	1.641	0.392	4.03	3.69	358	381	517	415
VALVE FULLY CLOSED		34.0	39.1	42.3	34.0	60.2	4.367	4.11	386	362	495	435
35.0	40.7	44.3	34.9	-62.0	-4.553	0.390	4.17	4.06	375	385	535	417
36.0	43.1	47.5	36.3	-79.2	-5.745	0.390	4.04	3.96	359	386	467	413
37.0	41.2	45.0	35.2	60.7	4.406	0.390	4.14	4.03	353	393	454	424
38.0	38.0	40.9	33.5	129.4	9.991	0.390	4.15	4.13	334	401	442	428
39.0	42.6	46.8	36.0	-172.6	-1.2519	0.390	4.28	4.19	363	419	428	437
40.0	39.9	43.4	34.5	90.0	6.531	0.390	4.31	4.31	364	409	431	434
41.0	40.5	44.1	34.8	-20.1	-1.459	0.390	4.19	4.18	355	408	408	430
42.0	40.6	43.0	34.3	34.2	2.479	0.390	4.30	4.28	380	426	438	430
43.0	36.7	39.3	32.8	138.1	1.0020	0.390	4.15	4.13	353	400	400	431
44.0	40.8	44.6	35.0	-182.5	-1.3243	0.390	4.09	4.09	378	399	399	420
45.0	41.2	45.0	35.2	-12.3	-0.894	0.390	3.84	4.04	364	394	384	414
46.0	40.5	44.1	34.8	25.1	1.821	0.390	4.02	4.02	360	402	381	413
47.0	39.8	43.2	34.4	27.1	1.964	0.390	4.04	4.04	358	399	404	415
48.0	37.6	40.4	33.2	36.3	6.990	0.390	4.29	4.29	387	429	387	443
49.0	40.5	44.1	34.8	-122.7	-8.905	0.390	3.95	4.27	374	395	374	416
50.0	39.4	43.4	34.5	20.1	1.459	0.390	3.94	4.17	361	394	372	406

(Table continues)

Table 11C — Inferred Pressurant Distribution, Scaling Run 203: Test Configuration 1 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME TEMP DEC C)		BETA BETA/15STAR PRESSURANT FRACTION										
(SEC)		NEWM I = 1										
VALVE FULLY CLOSED												
51.0	40.3	43.3	34.7	-13.5	-0.982	390	384	428	373	395	363	384
52.0	39.2	42.5	34.1	42.3	3.067	390	385	432	361	396	361	385
53.0	37.6	40.4	33.2	74.9	5.032	390	384	439	356	384	356	385
54.0	40.1	43.7	34.6	-109.8	-7.969	390	384	432	377	410	377	411
55.0	39.2	42.3	34.1	35.6	2.582	390	376	412	365	388	353	399
56.0	42.1	46.2	35.7	-102.3	-7.419	390	387	416	368	397	359	388
57.0	38.3	41.4	33.6	140.7	1.0210	390	384	433	368	394	342	387
58.0	41.9	43.9	35.6	-135.3	-9.820	390	394	413	375	384	346	384
59.0	37.8	40.7	33.4	160.4	1.1635	390	384	435	367	381	326	384
60.0	40.5	44.1	34.8	-113.8	-8.237	390	383	416	373	383	340	383
61.0	42.6	46.8	36.0	-70.2	-5.092	390	380	417	380	389	352	380
62.0	38.7	41.8	33.8	140.6	1.0261	390	383	418	380	380	330	380
63.0	42.1	46.1	35.7	-124.9	-9.662	390	388	418	389	389	341	389
64.0	38.0	40.9	33.5	157.2	1.1404	390	391	432	378	391	323	384
65.0	38.9	42.0	34.0	-41.6	-3.018	390	384	419	382	382	332	382
66.0	42.2	46.3	35.9	-122.6	-8.892	390	388	407	378	378	350	388
67.0	37.6	40.4	33.3	179.5	1.3021	390	416	459	316	416	360	416
68.0	39.6	42.9	34.4	-89.4	-6.483	390	376	411	376	387	340	376
69.0	40.1	43.6	34.7	-20.9	-1.518	390	383	417	372	383	338	383
70.0	35.5	37.5	32.4	236.3	1.7142	390	389	447	369	389	292	389
71.0	39.9	43.1	34.6	-224.0	-1.6252	390	381	416	369	381	334	381
72.0	39.3	43.3	34.7	-7.0	-0.566	390	387	433	375	387	328	387
73.0	37.6	40.3	33.4	103.2	1.032	390	415	472	400	415	357	400
74.0	40.1	43.5	34.8	-109.8	-7.969	390	375	421	364	387	329	375
75.0	36.9	39.4	33.1	148.0	1.0736	390	371	434	355	386	292	371
76.0	39.4	42.6	34.4	-120.9	-8.768	390	370	419	370	383	322	370
77.0	38.7	41.7	34.0	30.7	2.226	390	382	414	362	388	310	388
78.0	35.9	38.0	32.5	157.9	1.1455	390	388	431	358	384	284	376
79.0	41.0	44.7	35.3	-241.3	-1.7504	390	370	412	370	391	327	391
80.0	39.1	42.2	34.2	75.2	5.634	390	374	424	374	386	311	386
81.0	37.8	40.6	33.5	58.2	4.225	390	372	442	372	400	315	386
82.0	42.2	46.3	36.0	-170.9	-1.2356	390	367	416	367	386	338	377
83.0	39.4	42.6	34.4	100.4	7.284	390	373	422	373	385	313	385
84.0	37.3	39.9	33.2	101.1	7.332	390	376	436	376	391	302	391
85.0	41.0	44.7	35.3	-159.3	-1.1560	390	370	412	370	380	327	380
86.0	39.8	43.1	34.5	46.0	3.339	390	374	421	362	374	316	374
87.0	37.8	40.6	33.5	87.3	6.334	390	366	423	352	380	296	366
88.0	40.3	43.8	34.8	-107.4	-7.792	390	373	418	362	384	317	373
89.0	40.1	43.6	34.7	6.7	0.086	390	381	415	358	381	324	381
90.0	35.3	37.3	32.3	248.6	1.8039	390	367	420	346	387	265	346
91.0	40.7	44.2	35.1	-265.6	-1.9271	390	374	410	354	380	321	365
92.0	38.2	41.0	33.7	102.8	7.460	390	366	435	352	393	297	352
93.0	35.3	37.3	32.3	172.7	1.2532	390	355	435	334	393	254	355
94.0	40.8	44.4	35.2	-271.0	-1.5661	390	380	423	358	391	315	385
95.0	37.3	39.9	33.2	153.4	1.1132	390	368	428	353	388	293	368
96.0	38.0	40.8	33.6	-37.3	-2.709	390	376	432	348	404	306	376
97.0	42.2	46.2	36.0	-162.4	-1.1783	390	385	414	375	395	326	375
98.0	38.5	41.5	33.9	138.0	1.0016	390	407	460	394	434	328	394
99.0	37.5	40.1	33.3	53.1	3.834	390	401	446	372	416	313	387
100.0	41.9	45.8	35.8	-177.9	-1.2508	390	388	418	368	408	328	378

(Table continues)

Table 11D — Inferred Pressurant Distribution, Scaling Run 204: Test Configuration 1 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI																			
TIME TEMP./SEC C)		BETA BETA/7STAR PRESSURANT FRACTION																	
(SEC) MEAN AIR PRESSURANT		NEHN 1 = 1																	
VALVE FULLY CLOSED																			
51.0	39.8	41.5	33.8	23.4	-4.313	379	386	407	345	386	345	417	345	500	324	40	334	376	345
52.0	38.3	41.4	33.0	-26.6	-4.905	379	389	401	341	377	329	413	329	532	331	41	341	377	341
53.0	39.1	42.6	33.5	15.5	-2.849	379	385	407	363	385	341	407	330	516	330	40	330	385	341
54.0	42.7	47.2	35.1	48.1	-8.870	379	382	399	337	382	340	399	340	492	340	39	348	391	357
55.0	39.0	42.4	33.4	-51.0	-9.397	379	387	410	333	387	332	399	332	521	343	39	343	387	347
56.0	39.0	40.5	32.7	-26.2	-4.834	379	382	408	333	382	318	408	343	549	330	42	310	382	330
57.0	39.3	42.8	33.6	32.0	-5.900	379	391	401	347	380	336	401	347	510	337	41	336	380	332
58.0	40.2	44.0	34.0	13.6	-2.567	379	375	405	335	385	335	395	355	506	335	41	335	385	345
59.0	39.3	42.6	33.6	-13.6	-2.567	379	383	405	340	372	329	394	351	524	340	41	340	394	340
60.0	40.2	44.0	34.0	13.6	-2.567	379	377	418	347	377	327	394	351	524	340	41	340	394	340
61.0	38.8	42.1	33.3	-22.4	-4.135	379	369	426	347	369	313	391	347	528	347	42	347	392	335
62.0	42.5	46.9	35.2	51.9	-9.568	379	375	409	338	375	324	383	358	503	349	40	341	392	349
63.0	37.5	40.5	32.8	-73.9	-1.3627	379	369	421	333	369	304	395	356	531	330	42	343	392	330
64.0	40.2	43.9	34.1	45.3	-8.358	379	373	414	343	373	312	384	363	516	333	41	353	394	337
65.0	40.2	43.9	34.1	0.0	0.000	379	366	406	345	366	305	376	366	528	345	41	345	406	355
66.0	37.9	40.9	32.9	-38.4	-7.085	379	356	418	331	368	293	381	356	556	343	41	343	406	356
67.0	42.3	46.7	35.2	65.4	-1.2030	379	363	407	337	372	320	372	372	512	355	39	355	396	363
68.0	37.4	40.2	32.7	-75.4	-1.3898	379	348	415	321	361	295	375	375	575	335	41	348	415	348
69.0	41.8	46.0	35.0	69.4	-1.2790	379	363	399	336	372	317	372	372	517	363	39	345	399	372
70.0	37.5	40.4	32.8	-65.9	-1.2133	379	347	412	330	360	294	373	373	583	347	41	347	412	347
71.0	41.6	45.7	34.9	63.8	-1.1766	379	353	399	334	371	316	371	380	519	353	39	362	406	371
72.0	39.0	42.3	33.5	-38.5	-7.953	379	358	392	334	358	301	358	381	562	347	40	358	415	369
73.0	39.0	42.3	33.5	0.0	0.000	379	360	394	337	360	303	371	371	541	360	39	360	416	360
74.0	39.7	43.2	33.9	11.5	-2.111	379	356	399	334	356	313	367	372	527	356	39	367	409	371
75.0	37.7	40.7	32.9	-34.0	-6.269	379	337	408	331	370	293	357	383	588	337	38	357	402	331
76.0	42.3	46.6	35.3	68.7	-1.2634	379	358	393	340	372	314	367	367	534	367	39	367	393	367
77.0	38.3	41.4	33.1	-59.0	-1.0876	379	355	391	318	367	282	367	379	586	367	40	355	391	367
78.0	40.4	44.1	34.2	34.4	-6.333	379	394	394	334	374	303	364	364	546	364	39	364	394	374
79.0	39.0	42.3	33.5	-22.0	-4.831	379	349	395	326	372	292	372	383	577	349	40	349	395	361
80.0	38.1	41.1	33.1	-15.8	-2.916	379	357	394	320	369	283	369	369	580	357	40	357	394	369
81.0	39.5	43.0	33.8	24.5	-4.998	379	352	385	330	363	287	363	385	569	352	40	363	396	374
82.0	36.5	39.0	32.3	-57.8	-1.0560	379	352	382	308	367	248	367	382	636	352	41	352	397	367
83.0	40.6	44.4	34.3	72.8	-1.3413	379	357	387	338	377	288	367	377	547	367	39	367	387	377
84.0	38.6	41.8	33.3	-30.5	-5.628	379	349	384	326	373	279	361	373	596	361	40	361	384	371
85.0	37.9	40.9	33.0	-13.1	-2.417	379	360	385	322	385	271	372	372	586	360	41	347	397	360
86.0	42.2	46.4	35.2	63.4	-1.1680	379	359	378	342	378	306	369	369	537	360	39	369	386	378
87.0	37.7	40.7	32.9	-66.7	-1.2287	379	368	394	342	394	291	381	381	407	368	41	381	419	381
88.0	39.7	43.2	33.9	34.0	-6.269	379	366	376	333	376	291	366	366	569	355	39	366	396	366
89.0	39.1	42.5	33.6	-8.5	-1.567	379	362	385	340	374	284	374	362	576	351	40	351	396	362
90.0	37.9	40.9	33.0	-22.1	-4.082	379	358	394	321	371	283	368	358	599	346	40	371	396	371
91.0	41.6	45.7	34.9	57.1	-1.0328	379	392	410	364	392	327	382	382	558	373	41	124	410	401
92.0	36.7	39.2	32.4	-81.9	-1.5097	379	368	397	333	368	264	353	353	619	338	41	368	397	369
93.0	41.8	45.9	35.1	83.9	-1.5469	379	368	387	341	368	313	359	368	569	339	40	377	387	377
94.0	39.0	42.3	33.6	-40.7	-7.495	379	362	397	328	374	293	331	374	549	339	40	374	387	374
95.0	38.1	41.1	33.1	-15.8	-2.916	379	362	387	334	374	287	349	374	586	349	41	374	387	367
96.0	42.0	46.1	35.1	58.1	-1.0787	379	368	386	340	377	313	359	377	531	368	40	366	346	367
97.0	37.0	39.7	32.6	-78.5	-1.4472	379	354	396	311	360	269	340	360	609	354	42	362	382	366
98.0	41.1	45.0	34.7	68.0	-1.2336	379	362	381	332	371	313	352	371	537	362	40	381	381	361
99.0	39.5	42.9	33.9	-23.1	-4.236	379	361	383	339	372	293	350	372	538	350	42	383	383	372
100.0	37.7	40.6	33.0	-31.3	-5.765	379	360	399	331	373	281	347	373	516	373	43	156	386	377

Table 11E — Inferred Pressurant Distribution, Scaling Run 205: Test Configuration 1

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS M1														
TIME (SEC)		TEMP (DEC C)		BETA		BETA/STAR		PRESSURANT FRACTION						
(SEC)	MEAN	AIR PRESSURANT	MEAN I = 1	2	3	4	5	6	7	8	9	10	11	12
COMMENCE VALVE OPENING														
0	0	30	0	30	0	156	0	-6	0	0000	0	0	0	0
1	0	30	1	30	0	21	9	19073	4-74	3183	0	0	0	0
VALVE FULLY OPEN														
2	0	31	2	31	2	30	3	270	8	5	1285	0	0	0
3	0	33	0	33	0	22	7	-52	7	-6002	0	0	0	0
4	0	34	8	34	8	20	0	17	7	4197	0	0	0	0
5	0	36	0	37	3	20	2	22	7	5488	0	0	0	0
6	0	37	0	38	5	21	6	15	5	2681	0	0	0	0
7	0	37	7	39	4	22	3	10	2	1131	0	0	0	0
8	0	38	1	40	1	24	7	25	8	9177	0	0	0	0
9	0	38	5	40	7	25	0	11	4	0854	0	0	0	0
10	0	38	7	41	0	25	5	21	3	2553	0	0	0	0
11	0	38	9	41	5	27	0	24	2	8830	0	0	0	0
12	0	39	0	41	6	27	1	21	7	0787	0	0	0	0
13	0	39	0	41	8	28	0	24	5	6894	0	0	0	0
14	0	39	0	41	8	28	3	25	5	2258	0	0	0	0
15	0	39	0	42	0	29	0	24	4	6275	0	0	0	0
16	0	39	0	42	0	28	9	18	1	-0239	0	0	0	0
17	0	39	0	42	1	29	5	24	8	5937	0	0	0	0
18	0	38	9	42	1	29	7	25	7	3407	0	0	0	0
19	0	38	9	42	1	29	8	27	6	0586	0	0	0	0
20	0	38	6	42	2	30	4	25	1	8990	0	0	0	0
21	0	38	8	42	1	30	3	23	2	-1356	0	0	0	0
22	0	38	7	42	2	30	8	25	3	7810	0	0	0	0
23	0	38	7	42	1	30	8	21	2	-0921	0	0	0	0
24	0	38	6	42	0	31	1	26	5	6018	0	0	0	0
25	0	38	6	42	0	31	1	25	9	0822	0	0	0	0
26	0	38	5	42	0	31	5	25	8	7264	0	0	0	0
27	0	38	5	42	0	31	3	24	7	-3178	0	0	0	0
28	0	38	4	42	0	31	6	26	0	6429	0	0	0	0
29	0	38	4	41	9	31	6	-28	7	0110	0	0	0	0
30	0	38	3	41	9	31	9	26	4	6050	0	0	0	0
31	0	38	3	41	9	32	0	26	3	3740	0	0	0	0
32	0	38	2	41	9	32	0	23	0	-0391	0	0	0	0
COMMENCE VALVE CLOSURE														
33	0	38	2	41	9	32	1	26	1	3498	0	0	0	0
34	0	38	1	41	7	32	1	-1	9	0073	0	0	0	0
VALVE FULLY CLOSED														
35	0	38	1	41	5	32	6	-141	8	5513	0	0	0	0
36	0	41	3	45	6	34	3	211	4	-8220	0	0	0	0
37	0	38	3	41	7	32	7	-197	8	7693	0	0	0	0
38	0	38	6	42	2	32	9	26	9	-1047	0	0	0	0
39	0	39	3	43	1	33	3	50	7	-1921	0	0	0	0
40	0	37	4	40	6	32	3	-149	7	5621	0	0	0	0
41	0	36	0	38	7	31	6	-136	3	5299	0	0	0	0
42	0	37	7	41	1	32	5	1	5	9 -6453	0	0	0	0
43	0	38	5	42	0	32	8	5	2	-2186	0	0	0	0
44	0	37	7	41	1	32	5	-56	2	2186	0	0	0	0
45	0	37	0	40	1	32	1	-61	6	2395	0	0	0	0
46	0	34	9	37	3	31	1	-228	6	8891	0	0	0	0
47	0	37	7	41	1	32	5	287	8	-11191	0	0	0	0
48	0	38	5	42	0	32	8	56	2	-2186	0	0	0	0
49	0	37	0	40	1	32	1	-117	6	4572	0	0	0	0
50	0	37	6	40	8	32	4	46	8	-1818	0	0	0	0

(Table Continues)

Table 11E — Inferred Pressurant Distribution, Sealing Run 205: Test Configuration 1 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MINI														
TIME TEMP. DEG. C.		BETA BETA-TSTAR PRESSURANT FRACTION												
(SEC)		MEAN AIR PRESSURANT												
		MEAN I = 1												
VALVE FULLY CLOSED														
51.0	34.6	31.0	31.0	319.1	1.2411	385	394	412	325	377	377	412	360	480
52.0	37.0	40.1	32.1	274.9	-1.0689	385	382	407	345	370	370	395	370	457
53.0	39.2	42.9	33.2	168.6	-6.958	385	376	407	356	376	366	387	366	438
54.0	36.2	38.9	31.7	-252.7	9.828	385	373	415	346	373	359	401	346	417
55.0	37.0	40.1	32.2	86.3	-3.356	385	378	403	341	366	353	391	378	454
56.0	34.0	36.1	30.8	-349.8	1.3693	385	357	414	319	357	376	376	376	417
57.0	37.7	41.0	32.5	406.1	-1.5793	385	370	405	346	370	346	381	370	452
58.0	33.5	33.3	30.7	-486.0	1.8961	385	357	400	291	357	391	378	378	400
59.0	39.2	42.0	33.3	575.5	-2.2382	385	373	394	341	373	331	373	373	447
60.0	33.7	35.4	30.9	-549.9	2.1383	385	368	390	280	346	280	390	368	522
61.0	37.0	39.9	32.5	403.9	-1.5766	385	356	383	329	356	315	383	397	478
62.0	38.1	41.2	33.1	90.2	-3.569	385	350	375	338	350	325	375	397	461
63.0	34.2	36.1	31.2	-407.1	1.5830	385	332	373	292	332	312	352	393	514
64.0	38.1	41.2	33.2	407.1	-1.5830	385	345	382	345	357	332	370	420	489
65.0	32.8	34.1	30.8	-627.3	2.4356	385	300	392	270	331	239	331	392	576
66.0	35.6	37.0	32.2	657.9	-2.5587	385	353	379	327	353	314	366	431	457
67.0	35.6	37.0	32.2	-221.6	1.0561	385	332	385	332	332	296	367	438	474
68.0	37.6	40.3	33.3	189.9	-7.7884	385	349	377	334	349	306	363	420	483
69.0	38.1	40.9	33.6	43.6	-1.695	385	339	393	325	353	298	366	407	475
70.0	32.0	34.0	31.0	-627.3	2.4356	385	272	406	238	305	205	372	473	607
71.0	38.3	40.9	34.1	637.9	-2.4895	385	353	398	309	353	309	383	412	486
72.0	37.4	39.0	33.5	-72.6	2.825	385	356	403	324	372	292	388	419	483
73.0	36.9	39.2	33.2	-47.9	1.864	385	341	408	324	375	292	375	408	476
74.0	37.7	40.2	33.8	77.9	-3.021	385	355	413	332	352	270	386	417	483
75.0	35.3	37.2	32.3	-244.9	9.925	385	352	413	332	352	270	386	417	483
76.0	38.5	41.1	34.2	298.7	-1.615	385	366	410	352	366	308	381	395	453
77.0	35.8	37.0	32.6	-239.6	9.318	385	336	413	318	375	280	394	413	489
78.0	36.5	38.7	33.0	74.0	-2.878	385	366	401	331	366	279	384	419	489
79.0	38.1	40.7	34.0	140.3	-5.455	385	330	409	344	374	299	389	403	478
80.0	33.9	35.3	31.5	-457.2	1.7281	385	355	391	304	357	294	383	436	542
81.0	36.5	38.6	33.1	329.7	-1.8223	385	355	391	319	373	282	391	409	499
82.0	37.4	39.7	33.7	81.9	-3.185	385	355	404	322	388	289	388	404	486
83.0	34.0	35.5	31.7	-378.8	1.4732	385	323	401	297	375	270	375	427	530
84.0	37.6	39.9	33.8	392.7	-1.5321	385	360	393	311	376	294	376	409	490
85.0	34.4	36.0	31.9	-342.9	1.3336	385	333	406	284	381	295	357	430	532
86.0	33.0	34.2	31.1	-247.9	9.642	385	310	407	278	375	281	375	407	570
87.0	38.0	41.5	34.5	638.2	-2.4817	385	361	404	318	375	304	375	418	481
88.0	36.0	38.0	32.7	-246.4	9.982	385	347	423	310	366	272	366	404	498
89.0	33.0	34.2	31.1	-432.9	1.6836	385	323	452	259	388	195	355	420	500
90.0	37.4	39.8	33.6	549.6	-2.1372	385	356	405	308	373	291	356	405	486
91.0	39.7	42.6	35.1	173.2	-6.737	385	356	396	330	370	303	356	410	476
92.0	34.4	36.0	31.9	-485.3	1.8871	385	336	410	287	360	262	336	434	533
93.0	37.4	39.7	33.7	328.7	-1.2785	385	345	412	295	379	295	345	412	486
94.0	37.4	40.1	34.0	30.1	-1.170	385	344	409	328	376	295	344	409	490
95.0	32.6	33.6	31.1	-637.5	2.4791	385	332	454	209	372	168	291	413	659
96.0	36.7	38.6	33.7	563.4	-2.1910	385	332	454	209	372	168	291	413	659
97.0	37.7	39.9	34.4	94.7	-3.681	385	353	426	316	371	280	335	407	499
98.0	34.7	36.2	32.4	-310.1	1.2059	385	333	411	280	359	294	333	437	568
99.0	34.9	36.4	32.5	23.6	-0.918	385	332	434	281	383	256	332	437	561
100.0	39.7	42.2	35.7	420.9	-1.6366	385	344	405	328	374	297	359	405	498

Table 11F — Inferred Pressurant Distribution, Scaling Run 206: Test Configuration 1

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MI													
TIME (SEC)		TEMP (DEG C)		BETA		PRESSURANT FRACTION		MEAN		I = 1		I = 2	
VALVE FULLY OPEN		VALVE FULLY OPEN		VALVE FULLY OPEN		VALVE FULLY OPEN		VALVE FULLY OPEN		VALVE FULLY OPEN		VALVE FULLY OPEN	
0.0		29.3		29.3		29.3		29.3		29.3		29.3	
1.0		29.5		29.4		26.7		26.38		4-131.930		4-131.930	
2.0		31.3		31.3		22.3		174.6		8.3596		8.3596	
3.0		33.2		31.1		119.6		30.5		8.065		8.065	
4.0		34.5		32.0		76.4		11.7		1.961		1.961	
5.0		35.9		34.7		54.3		14.3		3.175		3.175	
6.0		36.6		35.7		47.6		17.0		2.235		2.235	
7.0		37.2		36.7		42.5		17.3		2.939		2.939	
8.0		37.6		37.9		37.9		21.4		4.214		4.214	
9.0		38.0		38.5		34.6		22.5		5.360		5.360	
10.0		38.1		39.2		33.0		24.7		8.082		8.082	
11.0		38.3		39.1		31.4		24.0		7.900		7.900	
12.0		38.4		39.7		31.4		24.0		7.906		7.906	
13.0		38.3		40.1		30.7		24.7		6.746		6.746	
14.0		38.4		40.3		30.6		19.9		1.234		1.234	
15.0		38.3		40.5		30.3		25.7		6.711		6.711	
16.0		38.4		40.7		30.3		18.4		1.090		1.090	
17.0		38.2		40.6		30.2		28.8		3.597		3.597	
18.0		38.4		41.0		30.3		22.8		6.169		6.169	
19.0		38.2		40.8		30.3		12.8		-0.936		-0.936	
20.0		38.2		41.0		30.4		24.4		6.669		6.669	
21.0		38.1		40.9		30.4		50.1		0.465		0.465	
22.0		38.1		40.9		30.4		15.26		1.526		1.526	
23.0		37.9		41.0		30.5		26.2		6.359		6.359	
24.0		37.8		40.9		30.5		31.4		1.909		1.909	
25.0		37.8		41.0		30.7		25.3		6.678		6.678	
26.0		37.8		41.0		30.8		21.2		0.251		0.251	
27.0		37.7		40.9		30.8		29.8		2.131		2.131	
28.0		37.6		40.9		30.9		26.4		4.228		4.228	
29.0		37.7		41.0		31.0		24.8		3.252		3.252	
30.0		37.7		41.2		31.1		21.1		1.084		1.084	
31.0		37.6		41.0		31.2		28.1		4.162		4.162	
COMMENCE VALVE CLOSURE													
32.0		37.5		41.0		31.2		29.7		1.271		1.271	
33.0		37.5		40.9		31.4		-7.3		3.572		3.572	
VALVE FULLY CLOSED													
34.0		37.8		41.2		32.2		-9.6		4.681		4.681	
35.0		37.4		35.4		30.2		-35.5		1.7305		1.7305	
36.0		35.9		38.6		31.3		23.4		-1.432		-1.432	
37.0		39.2		42.9		33.1		20.7		-1.061		-1.061	
38.0		36.6		39.5		31.7		-15.7		7.635		7.635	
39.0		33.2		35.1		30.1		-30.3		1.4790		1.4790	
40.0		39.5		42.0		32.2		40.9		-1.9328		-1.9328	
41.0		35.9		38.6		31.3		-17.0		0.312		0.312	
42.0		37.3		40.4		32.0		9.9		-4.806		-4.806	
43.0		35.0		37.4		30.9		-17.0		8.309		8.309	
44.0		35.0		37.4		30.9		0.0		0.0000		0.0000	
45.0		31.5		32.6		29.6		-45.3		2.2108		2.2108	
46.0		35.5		38.0		31.4		48.9		-2.3843		-2.3843	
47.0		35.1		38.7		31.6		4.1		-2.021		-2.021	
48.0		34.5		36.6		30.8		-13.5		6.595		6.595	
49.0		34.0		36.0		30.6		-5.5		2.667		2.667	
50.0		35.5		38.0		31.4		14.8		-7.231		-7.231	

(Table Continues)

Table 11F — Inferred Pressurant Distribution, Scaling Run 206: Test Configuration 1 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI																
TIME TEMP. DEG C)		BETA DATA/STAR PRESSURANT FRACTION														
(SEC)	MEAN	AIR PRESSURANT	MEAN	1	2	3	4	5	6	7	8	9	10	11	12	13
VALVE FULLY CLOSED																
51.0	33.9	30.5	31.5	2.8	-1.366	373	381	366	323	323	337	381	395	337	381	381
52.0	35.5	38.0	31.4	-2.8	-1.366	373	380	380	335	335	335	380	380	275	350	424
53.0	34.5	36.6	30.8	-9.4	4.599	373	358	393	324	324	327	376	393	358	376	425
54.0	31.0	31.8	29.6	-52.2	2.5490	373	450	496	313	359	267	496	313	633	587	393
55.0	35.4	37.5	31.7	57.9	-2.8260	373	349	383	332	315	298	366	418	386	587	486
56.0	36.4	38.9	32.3	8.2	-3.988	373	333	379	333	318	287	379	394	424	400	452
57.0	34.7	36.6	31.3	-14.4	-7.019	373	314	389	314	295	295	389	445	389	394	409
58.0	33.2	34.9	30.6	-15.4	-7.514	373	319	389	296	273	273	366	412	389	426	407
59.0	37.6	40.4	33.0	36.5	-1.7788	373	324	378	328	324	298	378	391	378	436	412
60.0	33.4	33.1	30.7	-34.5	1.6846	373	327	373	327	304	259	373	396	378	418	418
61.0	35.7	37.9	31.9	22.1	-1.0791	373	333	383	333	317	283	383	416	416	419	487
62.0	37.8	40.6	33.2	14.4	-7.040	373	345	385	345	331	304	372	399	372	433	350
63.0	32.9	34.3	30.5	-41.5	2.0322	373	289	395	289	289	289	369	448	342	331	399
64.0	35.2	37.2	31.0	24.6	-1.1985	373	324	395	306	306	268	361	417	343	434	417
65.0	36.1	38.3	32.3	7.1	-3.461	373	328	395	328	311	260	344	445	361	412	445
66.0	33.2	34.7	30.7	-26.8	1.3065	373	302	402	302	252	202	302	452	377	327	477
67.0	31.1	32.0	29.7	-37.0	1.8055	373	229	462	229	239	183	284	552	284	462	502
68.0	35.9	38.1	32.2	57.4	-2.7950	373	327	429	327	334	276	361	463	226	462	596
69.0	31.0	31.5	30.0	-60.8	2.9641	373	013	367	080	080	053	280	681	414	446	480
70.0	33.4	34.5	31.6	43.2	-2.1065	373	239	478	273	273	171	341	512	410	171	512
71.0	37.3	39.1	34.3	32.6	-1.5088	373	302	449	323	323	260	365	470	407	386	478
72.0	35.0	36.4	32.7	-17.0	1.8289	373	274	462	301	301	220	354	462	381	489	515
73.0	32.0	32.8	30.7	-36.1	1.7623	373	181	511	181	228	134	322	463	322	511	463
74.0	34.7	36.0	32.5	33.3	-1.6222	373	276	448	276	304	190	333	391	362	477	477
75.0	36.4	38.0	33.7	14.4	-7.019	373	297	430	297	321	227	344	438	344	438	438
76.0	37.6	39.4	34.6	8.1	-3.567	373	283	408	283	325	220	346	487	366	492	471
77.0	34.7	35.9	32.5	-22.3	1.0865	373	304	448	275	333	218	362	477	384	477	488
78.0	31.7	32.4	30.5	-39.4	1.9217	373	244	460	190	244	028	352	514	352	56	514
79.0	34.8	36.1	32.7	40.8	-1.9897	373	302	446	302	331	186	360	475	215	302	475
80.0	38.5	36.9	33.2	6.1	-2.575	373	334	440	308	334	228	361	467	334	361	475
81.0	32.5	33.4	31.1	-32.1	1.5673	373	310	429	223	267	137	310	526	310	440	387
82.0	31.5	32.1	30.4	-19.7	9.666	373	280	452	280	338	051	395	538	280	510	395
83.0	37.1	38.8	34.2	57.3	-2.7937	373	338	403	338	360	251	381	538	229	338	468
84.0	34.1	35.3	32.1	-24.1	1.1268	373	340	402	309	340	184	371	495	371	340	495
85.0	32.0	32.8	30.7	-28.4	1.3878	373	304	398	256	304	114	351	540	398	304	540
86.0	35.0	36.4	32.7	36.1	-1.7623	373	335	396	307	362	223	362	417	350	280	350
87.0	37.6	39.4	34.6	19.2	-9.340	373	347	368	305	368	243	347	452	368	368	431
88.0	34.1	35.3	32.1	-27.2	1.3292	373	334	366	303	366	178	334	491	334	397	45
89.0	32.0	32.8	30.7	-28.4	1.3878	373	285	333	237	333	094	333	523	333	380	428
90.0	32.7	33.6	31.2	11.6	-5.676	373	307	348	267	348	146	307	510	348	348	468
91.0	36.1	37.6	33.5	33.4	-1.6314	373	341	365	316	341	218	341	439	341	488	439
92.0	37.5	39.2	34.5	9.6	-4.693	373	365	408	343	365	257	365	450	343	429	450
93.0	32.7	33.6	31.2	-41.8	2.0383	373	314	399	272	314	102	314	484	357	314	484
94.0	31.3	31.9	30.3	-26.3	1.2807	373	296	421	172	296	015	296	546	339	296	546
95.0	33.1	34.0	31.5	30.8	-1.5046	373	364	443	324	364	166	364	522	229	403	56
96.0	36.4	37.9	33.9	31.3	-1.5265	373	321	396	296	321	222	321	470	346	371	44
97.0	34.0	35.1	32.1	-21.3	1.0412	373	305	373	271	305	110	305	475	373	339	475
98.0	33.1	34.0	31.5	-10.6	5.183	373	282	440	282	282	123	321	479	361	361	440
99.0	31.7	32.3	30.5	-23.3	1.1333	373	241	462	241	241	020	296	517	407	332	51
100.0	34.1	35.3	32.2	34.8	-1.6977	373	295	426	262	295	156	327	459	360	393	393

Table 11G — Inferred Pressurant Distribution, Scaling Run 207: Test Configuration I

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS IN												
TIME (SEC)		BETA/BETA/TSTAR PRESSURANT FRACTION										
(SEC)		MEAN 1 - 1										
COMMENCE VALVE OPENING		0	1	2	3	4	5	6	7	8	9	10
0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
1	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3
VALVE FULLY OPEN		0	1	2	3	4	5	6	7	8	9	10
0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
1	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3
COMMENCE VALVE CLOSURE		0	1	2	3	4	5	6	7	8	9	10
0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
1	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3
VALVE FULLY CLOSED		0	1	2	3	4	5	6	7	8	9	10
0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
1	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3

(Table Continues)

Table 11G — Inferred Pressurant Distribution, Sealing Run 207: Test Configuration 1 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 3 C METER CHAMBER OBSTRUCTED GAS MIXI														
TIME TEMP. DEG C) BETA BETA/TSTAR PRESSURANT FRACTION														
(SEC) MEAN AIR PRESSURANT MEAN I = 1														
VALVE FULLY CLOSED														
51.0	30.0	41.7	32.0	-16.1	-1511	306	378	419	368	368	357	358	378	388
52.0	37.3	40.8	31.7	21.6	-2035	306	387	420	355	377	344	358	366	387
53.0	37.3	40.8	31.7	0.0	0.0000	306	378	411	356	367	334	389	378	389
54.0	36.9	40.4	31.5	11.5	1084	306	378	423	378	367	344	389	367	378
55.0	38.2	42.0	32.1	-38.3	-3399	306	382	412	362	372	341	382	382	392
56.0	36.6	39.9	31.3	50.2	-4724	306	375	433	363	375	328	387	375	392
57.0	37.3	40.8	31.7	-23.6	-2216	306	382	426	361	371	339	387	371	387
58.0	38.2	42.0	32.1	-26.8	-2519	306	372	423	372	372	341	382	372	392
59.0	37.1	40.6	31.6	32.5	3053	306	376	420	364	364	331	387	376	398
60.0	36.9	40.4	31.5	5.8	0548	306	385	410	365	365	328	376	388	399
61.0	38.2	42.0	32.1	-38.3	-3599	306	379	411	360	376	340	379	380	399
62.0	37.3	40.8	31.7	26.8	-2519	306	383	418	363	363	330	379	385	399
63.0	36.4	39.7	31.2	29.8	-2801	306	382	411	364	352	316	376	388	399
64.0	36.6	39.9	31.3	-6.2	-0586	306	387	402	355	355	320	379	390	402
65.0	37.3	40.8	31.7	-23.6	-2216	306	381	415	361	361	328	371	393	402
66.0	38.0	41.7	32.0	-21.6	-2035	306	388	420	358	358	327	368	389	402
67.0	37.5	41.0	31.8	16.1	-1511	306	373	416	363	362	329	373	383	405
68.0	36.8	40.1	31.4	23.0	-2168	306	385	422	365	365	319	376	376	399
69.0	36.8	40.1	31.4	0.0	0.0000	306	380	429	360	372	326	372	372	399
70.0	37.3	40.8	31.7	-17.5	-1644	306	380	436	360	371	327	371	382	403
71.0	37.6	41.3	31.9	-11.0	-1039	306	384	428	365	375	343	365	375	403
72.0	37.1	40.6	31.6	16.7	-1575	306	386	424	358	369	335	369	380	413
73.0	36.2	39.4	31.1	30.5	-2865	306	387	419	347	371	335	359	383	419
74.0	36.8	40.1	31.4	-18.7	-1759	306	386	430	361	373	338	373	384	407
75.0	37.1	40.6	31.6	-11.8	-1108	306	383	420	364	376	342	374	384	407
76.0	37.6	41.3	31.9	-16.7	-1575	306	385	416	363	374	342	374	384	405
77.0	36.9	40.4	31.5	22.6	-2122	306	388	412	367	378	344	378	378	405
78.0	36.2	39.4	31.1	24.6	-2319	306	384	420	360	384	336	372	384	412
79.0	36.4	39.7	31.2	-6.4	-0601	306	383	414	367	378	343	378	378	409
80.0	36.8	40.1	31.4	-12.3	-1159	306	381	409	363	374	340	374	397	409
81.0	37.6	41.3	31.9	-28.5	-2681	306	382	405	362	373	341	373	394	405
82.0	37.1	40.6	31.6	16.7	-1575	306	382	406	373	373	340	373	384	405
83.0	36.4	39.7	31.2	24.1	-2266	306	385	412	365	365	329	365	389	412
84.0	36.1	39.2	31.1	12.9	-1216	306	386	410	373	361	324	361	398	412
85.0	36.6	39.9	31.3	-19.2	-1802	306	380	406	360	360	325	360	395	412
86.0	37.5	41.0	31.8	-29.1	-2735	306	387	410	367	377	324	356	395	412
87.0	37.3	40.8	31.7	5.6	0525	306	385	409	376	376	321	354	398	412
88.0	36.8	40.1	31.4	17.5	-1644	306	381	407	373	373	315	350	398	412
89.0	36.1	39.2	31.1	25.2	-2323	306	386	407	370	370	308	345	407	412
90.0	36.1	39.2	31.1	0.0	0.0000	306	388	405	368	368	306	356	405	412
91.0	36.1	39.2	31.1	0.0	0.0000	306	383	412	363	375	314	363	400	412
92.0	37.3	40.8	31.7	-42.6	-4011	306	384	408	364	375	320	364	397	412
93.0	36.9	40.4	31.5	11.5	1084	306	380	416	360	371	326	360	394	416
94.0	36.1	39.2	31.1	31.2	-2922	306	387	416	355	375	318	355	391	416
95.0	35.9	39.0	31.0	6.7	-0631	306	386	414	364	389	314	351	389	416
96.0	36.2	39.4	31.1	-13.2	-1246	306	386	410	370	382	310	370	394	416
97.0	36.6	39.9	31.3	-12.6	-1187	306	380	416	370	381	311	370	393	416
98.0	36.9	40.4	31.5	-12.0	-1133	306	380	414	368	391	312	368	391	402
99.0	37.5	41.0	31.8	-17.1	-1688	306	384	411	378	400	303	378	389	402
100.0	36.8	40.1	31.4	23.0	-2168	306	371	417	382	394	302	382	382	405

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MI																									
TIME TEMP(SEC C)		BETA BETA/10STAR PRESSURANT FRACTION																							
(SEC) MEAN AIR PRESSURANT		MEAN I - 1		2	3	4	5	6	7	8	9	10	11	12	13										
COMMENCE VALVE OPENING																									
0.0	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8									
1.0	24.8	24.7	16.3	9256	7.80	8171	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000									
VALVE FULLY OPEN																									
2.0	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2									
3.0	25.2	27.1	28.8	53.1	1.1327	0.21	-159	-159	-977	-001	-001	000	001	-002	003	002									
4.0	29.0	29.2	25.7	27.3	0.61	6.901	0.61	120	616	266	-055	001	-289	-026	06	-114									
5.0	30.3	30.5	25.3	-50.8	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37									
6.0	31.2	32.0	23.7	30.6	1.1904	0.08	0.94	0.94	254	0.94	151	0.71	0.94	-032	0.60	11									
7.0	32.0	33.2	23.9	30.6	7.0652	1.13	1.22	1.11	232	1.01	172	0.91	1.22	0.31	0.81	13									
8.0	32.6	33.9	23.3	10.4	0.910	1.21	1.43	1.24	1.90	1.05	1.71	1.14	1.14	0.67	1.14	14									
9.0	33.0	34.5	23.5	19.8	2.736	1.33	1.64	1.27	1.91	1.27	1.82	1.36	1.36	0.63	1.27	15									
10.0	33.3	35.0	23.7	23.2	4.684	1.50	1.71	1.44	1.79	1.35	1.97	1.62	1.62	1.00	1.44	17									
11.0	33.5	35.4	23.9	22.9	3.730	1.64	1.84	1.58	1.75	1.58	2.10	1.84	1.67	1.23	1.49	19									
12.0	33.6	35.6	24.1	23.8	3.353	1.76	1.96	1.69	1.87	1.69	2.22	1.87	1.78	1.52	1.52	19									
13.0	33.7	35.9	24.5	24.3	5.878	1.95	2.24	1.89	1.89	1.89	2.77	2.15	1.98	1.63	1.80	20									
14.0	34.9	37.2	24.7	49.5	-5914	1.66	3.66	26.7	259	26.7	354	298	26.7	-212	227	-10									
15.0	34.7	37.4	25.0	23.0	8.617	2.16	3.10	294	286	286	375	326	-119	253	262	29									
16.0	34.1	36.7	24.9	300.3	1.724	2.16	2.63	237	221	237	331	271	1.95	221	212	24									
17.0	33.7	36.5	25.4	26.7	1.0580	2.46	2.82	246	219	237	345	291	237	210	210	26									
18.0	33.8	36.5	25.3	25.5	1.240	2.73	2.88	252	226	243	333	279	236	208	208	25									
19.0	33.9	36.9	25.8	22.3	5.943	2.83	3.25	289	271	289	388	334	1.72	235	262	14									
20.0	33.7	36.6	25.8	34.0	2.037	2.67	3.11	283	265	265	394	330	0.71	265	247	28									
21.0	33.6	36.5	25.9	28.2	2.347	2.73	3.08	289	270	280	373	336	1.77	261	242	29									
22.0	33.6	36.7	26.1	24.7	8.044	2.97	3.41	312	302	302	418	351	233	283	283	33									
23.0	33.4	36.4	26.2	7.0	-0.225	2.94	3.30	291	271	291	408	330	2.71	261	252	31									
24.0	33.3	36.4	26.4	26.2	5.397	3.49	3.38	308	288	298	418	358	2.58	288	278	32									
25.0	33.3	36.4	26.3	23.7	1.6149	3.04	3.39	299	289	289	399	349	2.79	279	269	30									
26.0	33.5	36.7	26.7	23.3	6.147	3.22	3.84	334	324	334	434	384	334	324	304	35									
27.0	33.2	36.4	26.7	32.6	3.583	3.29	3.54	344	323	313	437	375	313	302	282	34									
28.0	33.1	36.3	26.7	32.4	0.8559	3.31	3.63	339	318	318	454	381	308	297	287	35									
29.0	33.1	36.3	27.0	26.4	7.214	3.49	3.63	351	319	340	468	383	329	329	308	37									
30.0	33.1	36.3	27.0	17.3	-0.094	3.49	3.92	349	327	338	456	392	317	327	306	37									
31.0	33.0	36.3	27.2	25.9	4.589	3.60	4.14	370	338	358	458	403	338	338	316	37									
32.0	33.0	36.3	27.3	27.0	3.960	3.70	4.18	374	352	374	483	429	332	252	340	38									
COMMENCE VALVE CLOSURE																									
33.0	32.9	36.2	27.2	24.3	-2.347	3.63	4.06	362	351	362	484	406	338	340	328	37									
34.0	32.9	36.1	27.6	-67.4	5.833	3.76	4.17	382	370	370	499	429	370	311	323	38									
VALVE FULLY CLOSED																									
35.0	32.8	35.9	27.8	-34.4	2.982	3.82	4.30	381	369	381	517	430	332	381	344	36									
36.0	32.2	35.1	27.5	-25.8	2.232	3.82	4.19	380	354	367	512	419	337	367	314	40									
37.0	33.4	36.6	28.1	43.7	-3.780	3.82	4.18	395	347	383	465	430	337	371	336	40									
38.0	33.0	36.2	27.9	-11.8	1.023	3.82	4.20	396	347	400	457	432	330	347	323	39									
39.0	28.7	30.5	25.8	-204.6	1.7705	3.82	3.97	776	669	776	819	797	650	347	609	-65									
40.0	33.4	36.6	28.2	214.8	-1.8595	4.24	4.34	434	374	422	446	446	374	350	326	41									
41.0	29.0	30.9	26.0	-1.93.6	1.6756	3.82	4.23	423	321	402	423	423	362	362	341	44									
42.0	29.2	31.1	26.1	11.4	-0.980	4.28	4.28	417	348	400	428	447	348	348	309	40									
43.0	32.8	35.8	28.0	18.1	-1.4463	3.82	4.50	463	386	424	437	463	411	399	373	41									
44.0	30.6	33.0	26.8	-93.2	8.065	3.82	4.44	496	498	514	546	482	-296	433	-15	465									
45.0	29.0	30.9	26.0	-48.2	7.679	3.82	4.32	493	371	412	472	412	472	371	331	41									
46.0	27.7	29.1	25.4	-1.11	9.614	3.82	4.30	532	322	403	376	483	339	322	268	45									
47.0	28.2	29.8	25.6	47.3	-4.097	3.82	4.83	555	387	459	411	555	411	364	387	50									
48.0	33.5	36.8	28.3	253.6	-2.1954	3.82	3.98	434	351	386	363	434	335	363	339	43									
49.0	31.8	34.6	27.3	-43.1	5.498	3.82	4.10	465	354	396	354	437	354	333	340	45									
50.0	31.1	33.7	27.0	-39.8	2.577	3.82	4.13	458	353	398	338	428	338	338	338	45									

(Table Continues)

Table 11H — Inferred Pressurant Distribution, Scaling Run 210: Test Configuration 1 (Continued)

INFERRED PRESSURANT DISTRIBUTION — 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME (SEC)		BETA DELTA/15STAR PRESSURANT FRACTION										
(SEC)		DOWN : = 1										
VALVE FULLY CLOSED		1	2	3	4	5	6	7	8	9	10	11
		12	13	14	15	16	17	18	19	20	21	22
51.0	30.0	29.5	25.5	-187.0	1.6186	382	471	595	422	372	298	47
52.0	32.0	36.4	25.1	256.4	-2.1188	382	399	459	375	350	290	45
53.0	31.0	34.6	27.3	-31.6	4.464	382	403	472	376	362	293	47
54.0	30.6	33.0	26.7	-54.2	4.692	382	387	481	387	353	324	46
55.0	32.7	35.7	27.8	87.1	-7.537	382	400	451	375	400	325	46
56.0	30.9	33.5	26.9	-70.8	6.127	382	437	512	466	452	283	45
57.0	30.4	32.8	26.6	-25.3	2.187	382	430	511	398	430	221	47
58.0	32.5	35.5	27.7	89.3	-7.722	382	411	488	398	411	295	44
59.0	30.6	33.0	26.7	-80.8	6.997	382	432	510	400	432	321	47
60.0	33.5	36.8	28.3	116.1	-1.0047	382	409	468	386	409	304	45
61.0	28.5	30.2	25.8	-230.7	1.9572	382	417	531	417	440	235	48
62.0	32.7	35.6	28.6	205.1	-1.7751	382	410	463	337	410	279	45
63.0	28.2	29.7	25.7	-220.9	1.9817	382	460	561	450	409	257	51
64.0	34.7	38.1	29.3	282.9	-2.4484	382	388	433	377	388	343	46
65.0	31.6	34.2	27.5	-106.5	9.221	382	393	497	408	423	290	43
66.0	31.5	34.0	27.4	-7.3	0.636	382	483	558	498	468	255	46
67.0	32.0	34.7	27.6	21.5	-1.061	382	426	521	450	450	323	43
68.0	29.2	31.1	26.2	-136.7	1.1034	382	426	507	465	405	283	50
69.0	33.9	37.1	28.7	198.4	-1.7175	382	441	477	417	429	273	38
70.0	30.3	32.4	26.7	-143.4	1.2411	382	445	497	428	393	236	34
71.0	32.2	34.9	27.8	85.2	-7.722	382	419	661	419	377	236	34
72.0	31.0	34.4	27.6	-13.8	1.1196	382	422	480	422	393	236	34
73.0	27.8	29.2	25.6	-226.7	1.9624	382	435	547	435	463	185	48
74.0	33.0	35.9	28.3	264.2	-2.2865	382	399	493	412	399	234	38
75.0	27.0	27.8	25.7	-333.6	2.0876	382	472	662	520	520	350	36
76.0	32.3	34.4	29.0	316.4	-2.7384	382	423	456	400	445	320	47
77.0	30.6	32.3	27.8	-74.4	6.043	382	394	483	438	438	237	37
78.0	31.5	33.4	28.4	39.8	-3.444	382	379	439	399	318	238	37
79.0	30.8	32.5	27.9	-31.4	2.718	382	466	531	487	422	183	50
80.0	32.0	34.0	28.7	52.8	-4.569	382	344	401	363	363	353	46
81.0	27.8	28.9	26.2	-232.6	2.0133	382	316	428	353	204	382	40
82.0	30.6	32.2	27.5	179.1	-1.5583	382	346	416	385	346	346	41
83.0	34.4	36.8	30.6	141.8	1.2277	382	343	392	360	343	376	40
84.0	29.6	32.0	27.3	-193.5	1.6746	382	338	420	365	365	376	42
85.0	29.7	31.2	27.4	10.2	-0.883	382	341	421	368	341	341	42
86.0	32.0	33.9	28.9	106.4	-9.287	382	369	430	389	369	341	42
87.0	29.6	31.0	27.3	-116.2	1.0037	382	336	418	390	363	341	42
88.0	31.5	33.2	28.6	95.4	-8.258	382	339	404	360	382	341	42
89.0	31.3	33.0	28.5	-7.5	0.653	382	399	465	421	421	377	42
90.0	32.9	35.1	30.3	95.6	-8.278	382	348	399	355	365	365	41
91.0	29.9	31.4	27.6	-160.8	1.3522	382	358	463	384	384	305	38
92.0	32.3	34.2	29.2	169.9	-9.511	382	340	448	388	388	348	40
93.0	29.6	30.9	27.3	-129.1	1.1173	382	346	485	373	401	346	42
94.0	30.3	31.6	27.8	30.8	-3.356	382	343	444	343	294	343	41
95.0	31.8	33.6	28.5	71.6	-6.158	382	359	444	380	401	338	44
96.0	30.3	31.8	27.8	-71.6	6.158	382	345	421	345	370	345	44
97.0	30.6	32.2	28.0	17.6	-1.524	382	376	425	352	401	328	37
98.0	30.6	32.2	28.0	0.0	0.0000	382	371	443	347	395	371	41
99.0	30.9	32.6	28.3	16.6	-1.437	382	361	430	381	384	314	43
100.0	30.9	32.6	28.3	0.0	0.0000	382	361	430	381	407	337	40

(Table Continues)

Table III — Inferred Pressurant Distribution, Scaling Run 211: Test Configuration 1 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI																			
TIME TEMP/SEC C)		BETA BETA/STAR PRESSURANT FRACTION																	
(SEC)	MEAN AIR PRESSURANT	MEAN I = 1																	
VALVE FULLY CLOSED																			
51.0	33.4	32.9	34.2	26.2	1.2176	381	721	645	1.102	073	1.026	492	645	-270	-041	-57	111	-041	264
52.0	34.3	33.7	35.2	-7.0	-3270	381	726	637	983	945	983	498	568	-155	-056	-47	152	-056	290
53.0	35.7	35.1	36.7	-9.6	-4472	381	723	640	905	904	903	540	601	-150	053	-43	175	-008	357
54.0	34.1	33.6	35.0	10.9	5088	381	766	555	1.049	908	978	555	625	-232	060	-64	060	-081	343
55.0	33.2	32.7	34.0	7.2	3358	381	872	560	1.105	949	1.027	560	638	-235	016	-76	034	-062	249
56.0	32.5	32.1	33.2	6.6	3056	381	891	551	1.146	976	1.061	636	636	-239	041	-89	156	-214	296
57.0	31.1	30.8	31.7	16.1	1.7484	381	1.097	674	1.414	1.077	1.203	674	674	-574	-555	-172	-123	-384	356
58.0	34.6	34.1	35.6	-32.9	-1.5279	381	881	616	1.014	915	947	549	549	-130	019	-64	218	-048	218
59.0	36.6	35.9	37.7	-12.3	-5762	381	737	532	925	757	869	532	532	-086	139	-42	135	-030	251
60.0	36.0	35.4	37.1	3.1	1436	381	732	557	908	732	908	557	557	-146	147	-49	264	-029	264
61.0	34.3	33.7	35.2	11.8	5488	381	835	560	1.041	935	973	629	560	-284	080	-60	217	-126	217
62.0	31.8	31.4	32.5	22.3	1.0378	381	1.031	593	1.238	1.051	1.238	770	676	-591	021	-100	031	-354	208
63.0	33.0	32.6	33.8	-12.5	-5790	381	923	527	1.081	923	1.081	685	606	-344	-027	-73	131	-185	290
64.0	34.6	34.1	35.6	-12.7	-5886	381	812	545	1.012	979	945	679	545	-322	078	-58	212	-055	212
65.0	31.8	31.4	32.5	24.8	1.1519	381	1.020	588	1.303	1.114	1.114	737	742	-555	-018	-96	076	-207	170
66.0	33.6	34.1	35.6	-24.8	-1.1519	381	824	556	938	924	938	623	556	-315	154	-51	221	-114	221
67.0	33.4	32.9	34.2	9.6	4462	381	926	621	1.079	950	926	698	469	-370	164	-59	164	-141	164
68.0	32.9	32.4	33.6	4.7	2191	381	1.006	681	1.087	924	1.006	762	437	-456	112	-61	112	-294	193
69.0	31.1	30.8	31.7	19.4	9017	381	1.135	731	1.367	1.049	1.261	837	713	-646	-010	-96	-010	-434	202
70.0	36.7	36.0	37.9	-44.5	-2.0639	381	641	423	1.915	751	803	641	423	-233	150	-28	204	-069	204
71.0	33.6	33.1	34.4	21.2	9842	381	911	693	1.057	911	1.084	764	471	-408	031	-48	103	-262	178
72.0	32.7	32.2	33.5	7.9	3652	381	1.007	763	1.170	926	1.089	845	519	-622	030	-54	-032	-296	111
73.0	34.8	34.2	35.8	-17.1	-7952	381	843	689	1.036	778	972	778	755	-333	068	-31	068	-125	123
74.0	32.5	32.1	33.3	18.0	8731	381	1.030	779	1.280	946	1.197	863	362	-537	-056	-55	-036	-306	028
75.0	33.0	32.6	33.8	-5.0	-2327	381	1.024	711	1.180	946	1.180	867	321	-538	008	-46	-070	-226	008
76.0	32.0	31.6	32.7	10.5	4802	381	1.149	799	1.239	1.059	1.329	879	339	-650	110	-56	110	-380	-020
77.0	35.9	36.2	38.1	-16.1	-1.6777	381	849	595	916	755	916	702	391	-261	113	-15	113	-047	113
78.0	32.3	31.9	33.1	32.7	1.5214	381	1.093	660	1.266	1.006	1.352	920	314	-724	-032	-46	-118	-378	055
79.0	33.4	32.9	34.2	-1.5	-4583	381	1.045	666	1.121	969	1.197	818	288	-546	060	-31	-031	-243	-015
80.0	33.6	33.1	34.4	-1.5	-4690	381	1.061	613	1.135	986	1.209	838	318	-573	021	-35	-033	-276	021
81.0	32.7	32.2	33.4	7.9	3652	381	1.086	673	1.251	1.086	1.333	921	260	-648	013	-40	152	-400	-070
82.0	37.1	36.4	38.2	-30.4	-1.4133	381	1.048	579	955	794	1.003	740	311	-334	150	-11	042	-119	096
83.0	32.3	31.9	33.0	33.6	1.5616	381	1.080	727	1.256	1.080	1.433	903	286	-772	-067	-33	-283	-331	-067
84.0	33.9	33.4	34.8	-14.1	-6574	381	1.069	678	1.115	969	1.260	824	314	-560	022	-34	-133	-196	-022
85.0	32.3	31.9	33.0	14.1	6574	381	1.107	754	1.284	1.019	1.372	931	313	-746	040	-48	-216	-305	-040
86.0	33.9	33.4	34.8	-14.1	-6574	381	1.020	656	1.093	974	1.166	874	291	-582	073	-29	-073	-146	-000
87.0	33.8	33.2	34.6	1.4	6634	381	1.026	655	1.026	978	1.173	878	358	-533	061	-31	-087	-162	-013
88.0	30.8	30.4	31.3	31.3	1.4543	381	1.323	656	1.440	1.090	1.673	206	390	-1137	-193	-89	-310	-427	-077
89.0	34.5	33.9	35.3	-36.2	-1.6814	381	1.063	616	1.032	924	1.171	894	338	-495	061	-35	-078	-078	061
90.0	33.2	32.7	34.0	9.9	4578	381	1.046	689	1.125	987	1.283	887	332	-619	015	-46	-064	-144	015
91.0	34.5	33.9	35.3	-9.9	-4578	381	1.031	653	1.070	792	1.139	792	376	-487	029	-38	-041	-041	098
92.0	32.9	32.6	33.8	11.4	5302	381	1.023	653	1.184	861	1.266	861	375	-516	030	-51	-111	-192	031
93.0	32.9	32.4	33.6	1.6	0732	381	1.068	655	1.151	903	1.234	903	324	-587	007	-50	-090	-090	-007
94.0	36.9	36.2	38.0	-28.0	-1.3002	381	850	570	906	738	961	738	346	-334	123	-21	027	-067	123
95.0	32.2	31.8	32.8	34.4	1.5986	381	1.162	790	1.255	976	1.349	976	324	-701	-142	-60	-235	-142	-049
96.0	32.5	34.9	36.5	-26.7	-1.2427	381	889	633	1.018	761	1.018	761	376	-330	055	-33	-073	-055	119
97.0	32.0	31.6	32.6	28.5	1.3254	381	1.070	799	1.368	982	1.368	982	403	-734	175	-65	-272	-175	017
98.0	33.9	33.4	34.7	-17.8	-6272	381	928	701	1.155	952	1.155	852	398	-434	056	-51	-131	-056	096
99.0	32.7	32.3	33.4	10.7	4968	381	1.033	771	1.208	958	1.295	858	421	-560	-053	-62	-131	-103	072
100.0	33.4	32.9	34.2	-6.4	-2965	381	924	764	1.165	844	1.245	844	362	-520	-039	-52	-119	-039	041

XXX

Table 12 — Mean Values of All Quantities, Test Configuration 1

MEAN VALUES OF ALL QUANTITIES																													
TIME		TMP.C			BETA		BETA/		X		MEAN PRESSURANT FRACTIONS AT LOCATIONS 1																TAU		
SEC	INIT	29.2	29.2	287.5	2.5	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.0	29.2	29.2	29.2	287.5	2.5	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
2.1	31.4	31.0	49.5	245.4	0.16	0.039	0.19	0.16	0.39	3.68	0.34	0.80	-0.72	0.60	-0.90	-0.31	-1.64	-0.5	-0.43	-0.71	0.5	-0.43	-0.71	0.5	-0.43	-0.71	0.5	-0.43	-0.71
2.9	32.6	32.3	43.1	56.5	2.4176	0.37	0.19	0.93	0.06	16.2	-0.01	0.99	-0.78	0.18	-0.34	0.24	0.23	-0.1	-0.21	0.67	1.9	-0.21	0.67	1.9	-0.21	0.67	1.9	-0.21	0.67
3.9	34.3	34.3	34.8	56.5	0.0	0.5181	0.58	0.50	0.40	2.72	0.32	0.88	-0.08	0.65	-0.03	0.56	0.83	-0.0	0.13	0.59	1.5	-0.0	0.13	0.59	1.5	-0.0	0.13	0.59	1.5
4.9	35.4	35.7	32.4	35.3	0.4389	0.76	0.81	0.85	0.85	1.96	0.66	1.05	0.52	0.70	0.16	0.59	0.96	-0.0	0.41	0.66	2.9	-0.0	0.41	0.66	2.9	-0.0	0.41	0.66	2.9
6.0	36.3	37.0	30.2	21.1	0.5303	0.95	0.68	1.08	0.91	1.28	0.95	0.92	0.45	0.19	1.02	0.82	0.5	1.06	1.13	2.5	0.5	1.06	1.13	2.5	0.5	1.06	1.13	2.5	0.5
6.9	36.8	37.8	29.4	21.9	0.6416	1.14	0.54	1.19	0.24	1.63	0.23	1.14	0.27	1.26	1.26	0.92	0.7	1.65	1.56	3.0	0.7	1.65	1.56	3.0	0.7	1.65	1.56	3.0	0.7
8.1	37.4	38.7	29.0	22.2	0.5145	1.33	1.33	2.57	1.10	3.26	1.36	2.37	1.48	0.76	-0.15	1.26	2.06	0.8	-0.3	0.56	3.5	-0.3	0.56	3.5	-0.3	0.56	3.5	-0.3	0.56
9.4	37.8	39.4	28.9	23.5	0.5159	1.52	1.83	1.45	1.90	1.40	2.33	1.64	1.39	1.08	1.32	1.88	1.4	1.02	1.11	4.0	1.4	1.02	1.11	4.0	1.4	1.02	1.11	4.0	1.4
10.7	38.0	39.9	29.0	27.8	0.4535	1.71	1.96	1.60	1.77	1.58	2.37	1.89	1.47	1.56	1.50	2.00	1.6	1.38	1.51	4.5	1.6	1.38	1.51	4.5	1.6	1.38	1.51	4.5	1.6
12.1	38.1	40.2	29.1	24.0	0.4388	1.90	2.12	1.80	1.83	1.79	2.47	2.12	1.70	1.85	1.46	2.12	1.8	1.59	1.68	5.0	1.8	1.59	1.68	5.0	1.8	1.59	1.68	5.0	1.8
13.5	38.3	40.6	29.4	29.9	0.5037	2.09	2.38	2.08	1.99	2.05	3.00	2.42	1.65	2.08	1.96	2.22	2.0	1.49	1.86	5.5	2.0	1.49	1.86	5.5	2.0	1.49	1.86	5.5	2.0
15.3	38.1	40.7	29.6	45.3	0.4102	2.20	2.51	2.17	2.04	2.17	3.14	2.55	2.04	2.42	2.05	2.38	2.0	2.09	2.16	6.0	2.0	2.09	2.16	6.0	2.0	2.09	2.16	6.0	2.0
16.8	38.1	40.8	29.9	31.0	0.5293	2.47	2.70	2.32	2.15	2.33	3.37	2.73	2.24	2.60	2.25	2.60	2.3	2.27	2.33	6.5	2.3	2.27	2.33	6.5	2.3	2.27	2.33	6.5	2.3
18.7	38.0	40.9	30.2	24.7	0.4042	2.66	2.92	2.47	2.41	2.56	3.64	2.98	2.28	2.81	2.42	2.71	2.6	2.38	2.36	7.0	2.6	2.38	2.36	7.0	2.6	2.38	2.36	7.0	2.6
21.0	37.9	40.9	30.5	22.0	0.3792	2.85	3.11	2.77	2.57	2.75	3.87	3.21	2.30	3.02	2.64	3.11	2.6	2.64	2.50	7.5	2.6	2.64	2.50	7.5	2.6	2.64	2.50	7.5	2.6
22.7	37.7	40.8	30.7	24.8	0.4941	3.04	3.28	2.91	2.73	2.87	4.05	3.38	2.74	3.20	2.78	3.14	2.9	2.63	2.78	8.0	2.9	2.63	2.78	8.0	2.9	2.63	2.78	8.0	2.9
25.3	37.6	40.8	31.0	27.8	0.3217	3.23	3.50	3.12	2.92	3.08	4.18	3.56	2.95	3.42	3.00	3.48	3.0	2.96	2.80	8.5	3.0	2.96	2.80	8.5	3.0	2.96	2.80	8.5	3.0
27.8	37.5	40.7	31.3	26.6	0.3567	3.42	3.69	3.35	3.11	3.29	4.44	3.73	3.04	3.57	3.28	3.80	3.2	3.21	3.14	9.0	3.2	3.21	3.14	9.0	3.2	3.21	3.14	9.0	3.2
30.6	37.4	40.7	31.5	25.5	0.3720	3.61	3.90	3.55	3.34	3.48	4.62	3.94	3.29	3.80	3.28	4.00	3.4	3.28	3.24	9.5	3.4	3.28	3.24	9.5	3.4	3.28	3.24	9.5	3.4
33.4	37.3	40.6	32.0	20.2	0.3945	3.83	4.21	3.83	3.64	3.82	4.88	4.28	3.42	3.94	3.33	4.00	3.5	3.47	3.36	1.00	3.5	3.47	3.36	1.00	3.5	3.47	3.36	1.00	3.5
38.3	36.9	40.0	31.5	2.7	0.2191	3.85	4.24	4.11	3.44	4.01	4.44	4.39	3.32	3.92	3.39	4.09	3.5	3.60	3.56	1.05	3.5	3.60	3.56	1.05	3.5	3.60	3.56	1.05	3.5
42.8	36.0	38.9	31.5	-34.6	0.5106	3.87	4.27	4.35	3.57	4.07	4.17	4.39	3.32	3.92	3.32	4.25	3.5	3.75	3.66	1.10	3.6	3.75	3.66	1.10	3.6	3.75	3.66	1.10	3.6
47.3	36.7	39.7	31.9	35.8	-1.122	3.89	4.29	4.41	3.73	4.14	4.00	4.50	3.67	3.15	3.55	3.69	3.6	3.41	3.66	1.15	3.6	3.41	3.66	1.15	3.6	3.41	3.66	1.15	3.6
51.7	35.7	38.4	31.5	33.2	-1.842	3.91	4.32	4.63	3.90	4.14	3.94	4.60	3.22	4.21	2.71	4.37	3.1	4.20	3.89	1.20	3.6	4.20	3.89	1.20	3.6	4.20	3.89	1.20	3.6
56.2	36.7	39.6	32.2	-116.2	-3.592	3.93	4.17	4.60	3.81	4.12	3.65	4.44	3.62	3.77	3.64	4.42	3.3	3.88	3.63	1.25	3.3	3.88	3.63	1.25	3.3	3.88	3.63	1.25	3.3
60.7	35.8	38.5	31.7	-12.4	0.2840	3.95	4.16	4.82	3.88	4.19	3.58	4.52	3.39	3.74	3.41	4.57	3.3	4.20	3.81	1.30	3.3	4.20	3.81	1.30	3.3	4.20	3.81	1.30	3.3
65.1	35.8	38.5	31.9	29.5	0.2463	3.97	3.98	5.13	3.89	4.16	3.48	4.53	3.67	3.62	3.27	4.72	3.2	4.25	3.71	1.35	3.2	4.25	3.71	1.35	3.2	4.25	3.71	1.35	3.2
69.6	36.2	38.9	32.2	-60.9	-3.689	3.99	4.34	5.35	4.17	4.53	3.71	4.69	3.30	3.65	3.46	4.46	2.9	3.81	3.59	1.40	2.9	3.81	3.59	1.40	2.9	3.81	3.59	1.40	2.9
72.2	31.7	34.1	28.2	85.0	0.1704	3.99	3.69	5.89	3.81	4.14	2.84	4.43	2.89	2.82	2.74	3.99	2.5	3.34	3.27	1.45	2.5	3.34	3.27	1.45	2.5	3.34	3.27	1.45	2.5
75.8	31.6	34.1	28.2	-37.1	0.2290	3.61	3.91	5.90	3.91	4.38	3.35	4.45	3.11	2.55	2.36	4.28	2.8	3.65	3.12	1.50	2.8	3.65	3.12	1.50	2.8	3.65	3.12	1.50	2.8
80.9	22.5	24.6	20.8	-13.2	0.0012	3.79	2.78	4.32	2.62	3.38	1.92	3.45	2.16	2.13	1.93	3.91	1.8	3.93	3.74	1.55	1.8	3.93	3.74	1.55	1.8	3.93	3.74	1.55	1.8
88.2	22.5	24.1	20.3	70.2	-0.1717	3.81	2.40	4.85	2.24	3.61	0.95	3.28	2.56	2.16	1.96	4.85	1.8	3.94	3.74	1.60	1.8	3.94	3.74	1.60	1.8	3.94	3.74	1.60	1.8
90.3	22.8	24.4	20.8	-58.2	-0.752	3.83	3.08	4.82	3.01	3.66	2.01	3.63	2.12	2.36	1.83	3.31	1.8	3.12	2.85	1.65	1.8	3.12	2.85	1.65	1.8	3.12	2.85	1.65	1.8
96.9	19.2	20.7	17.4	-50.9	-0.9516	3.84	4.62	3.02	3.01	3.35	6.21	3.81	1.93	1.16	1.94	0.05	1.7	-0.04	-0.15	1.70	1.7	-0.04	-0.15	1.70	1.7	-0.04	-0.15	1.70	1.7
102.4	18.6	20.0	17.0	-79.8	0.0451	3.46	1.508	-1.27	1.094	2.67	3.550	2.77	0.94	-2.42	5.00	-1.43	0.9	-1.133	-1.144	1.75	0.9	-1.133	-1.144	1.75	0.9	-1.133	-1.144	1.75	0.9
109.9	17.9	19.2	16.4	29.8	0.6446	3.48	2.198	-5.773	4.184	-1.7451	1.19	2.01	-0.04	-1.983	9.974	-9.62	1.99	-7.960	-1.996	1.80	1.99	-7.960	-1.996	1.80	1.99	-7.960	-1.996	1.80	1.99
114.3	14.7	16.2	13.1	-12.2	1.197	3.07	3.20	3.36	3.13	3.23	2.55	3.24	1.05	1.21	1.02	1.28	1.0	1.15	1.03	1.85	1.0	1.15	1.03	1.85	1.0	1.15	1.03	1.85	1.0
124.2	11.4	12.7	10.1	-9.4	-1.167	1.65	2.90	2.94	2.83	2.90	2.77	2.93	0.57	0.73	0.56	0.73	0.5	0.59	0.57										

Table 13 — Normalized Mean Local Pressurant Fractions, Test Configuration 1

NORMALIZED MEAN LOCAL PRESSURANT FRACTIONS													
LOCATIONS 1													
1	2	3	4	5	6	7	8	9	10	11	12	13	14
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.41	1.02	7.95	9.80	2.07	1.85	1.54	2.14	0.81	1.65	1.55	1.10	1.84	0.5
0.08	0.16	9.37	0.04	2.56	2.01	1.49	0.89	0.61	0.72	0.49	0.54	1.74	1.0
1.30	1.03	7.03	0.04	2.27	0.21	1.69	0.08	1.44	2.15	0.12	0.32	1.52	1.5
2.09	1.67	5.04	1.71	2.70	1.33	1.82	0.92	1.27	2.48	1.39	1.05	1.55	2.0
1.75	2.79	2.34	3.30	1.42	2.38	1.17	0.94	2.83	2.11	1.43	2.74	2.93	2.5
1.41	3.59	0.61	4.21	0.59	2.94	0.71	0.43	3.25	2.37	1.94	4.28	4.03	3.0
6.65	3.51	8.42	3.52	7.41	3.82	1.96	0.64	3.24	5.32	2.26	2.14	1.28	3.5
4.73	3.75	4.92	3.61	6.02	4.24	3.59	2.80	3.01	4.87	3.69	2.63	2.88	4.0
5.08	4.15	4.58	4.08	6.13	4.89	3.79	4.44	3.89	5.17	4.33	3.56	3.91	4.5
5.47	4.65	4.73	4.62	6.90	5.47	4.41	4.81	4.23	5.47	4.75	4.10	4.34	5.0
6.15	5.37	5.13	5.30	7.76	6.25	4.28	5.37	5.07	5.73	5.23	3.83	4.85	5.5
6.49	5.62	5.28	5.62	8.11	6.59	5.27	6.26	5.31	6.15	5.21	5.40	5.43	6.0
6.98	6.01	5.55	6.03	8.72	7.06	5.79	6.73	5.82	6.72	6.13	5.87	5.76	6.5
7.54	6.64	6.24	6.61	9.41	7.71	5.89	7.26	6.27	7.00	6.75	6.15	6.10	7.0
8.03	7.16	6.64	7.12	1.00	8.29	5.94	7.80	6.83	8.04	6.78	6.82	6.45	7.5
8.47	7.53	7.06	7.42	1.04	8.73	7.09	8.20	7.18	8.13	7.47	7.32	7.20	8.0
9.04	8.07	7.55	7.95	1.08	9.20	7.63	8.83	7.77	8.99	7.99	7.65	7.24	8.5
9.51	8.66	8.05	8.50	1.14	9.64	7.86	9.22	8.00	9.30	8.41	8.31	8.12	9.0
1.008	9.18	8.63	9.08	1.19	1.020	8.50	9.83	8.47	9.84	8.97	8.49	8.38	9.5
1.088	9.91	9.40	9.87	1.263	1.106	8.85	1.018	8.60	9.82	9.24	8.96	8.47	1.00
1.097	1.063	8.89	1.037	1.147	1.134	8.85	9.75	8.76	1.059	9.13	9.30	9.21	1.05
1.104	1.098	9.23	1.052	1.077	1.135	8.59	1.012	8.59	1.099	9.18	9.70	8.95	1.10
1.109	1.140	9.64	1.071	1.035	1.165	9.49	0.814	9.19	9.55	9.35	1.070	9.47	1.15
1.118	1.196	9.83	1.072	9.92	1.188	8.33	1.047	7.00	1.129	8.01	1.085	9.55	1.20
1.078	1.190	9.85	1.065	9.43	1.149	9.35	9.76	9.41	1.142	8.66	1.002	9.38	1.25
1.077	1.247	1.083	1.082	9.26	1.167	8.77	9.67	8.81	1.140	8.64	1.086	9.25	1.30
1.028	1.327	1.066	1.074	9.01	1.172	9.45	9.37	8.85	1.221	8.57	1.098	9.58	1.35
1.123	1.358	1.077	1.172	9.60	1.212	8.52	9.45	8.94	1.152	7.69	9.85	9.29	1.40
9.53	1.317	9.86	1.072	7.33	1.144	7.46	7.30	7.08	1.291	6.70	8.64	8.45	1.45
1.011	1.242	1.011	1.132	8.66	1.150	8.04	6.63	6.10	1.103	7.40	9.43	8.06	1.50
7.20	1.117	6.77	8.73	4.96	8.92	5.58	5.50	5.00	1.011	4.80	7.84	7.09	1.55
6.20	1.202	5.80	9.34	0.12	8.47	6.61	5.60	5.06	1.235	4.72	1.020	7.67	1.60
7.95	1.042	7.77	9.47	5.20	9.38	5.48	6.11	4.74	8.56	4.87	8.07	6.59	1.65
1.156	7.82	1.296	8.65	1.606	9.86	2.66	3.00	5.01	0.12	4.54	0.10	0.38	1.70
3.898	3.29	2.828	6.91	9.178	7.16	2.43	6.25	1.292	3.990	2.47	2.910	2.957	1.75
3.683	1.4	9.310	8.19	0.64336	5.82	5.19	0.11	5.12625	7.87	2.3	7.6	5.147	2.0
8.27	8.68	8.10	8.35	7.64	8.37	2.70	3.12	2.63	3.31	2.75	2.97	2.67	1.85
7.50	7.61	7.32	7.49	7.16	7.58	1.47	1.88	1.44	1.88	1.53	1.53	1.48	1.90
6.61	6.80	6.49	6.68	6.39	6.77	0.19	0.43	0.18	0.61	0.26	0.43	0.07	1.95
6.85	6.44	6.65	6.83	6.56	6.92	0.01	0.61	0.15	0.57	0.15	0.58	0.11	2.00
7.13	7.20	6.93	7.11	6.85	7.20	0.01	0.34	0.11	0.42	0.02	0.24	0.04	2.05
6.33	6.21	6.14	6.24	6.31	6.33	1.25	0.87	1.11	0.92	1.11	1.17	1.23	2.10
6.57	6.44	6.38	6.48	6.53	6.57	1.29	0.97	1.22	1.02	1.22	1.27	1.33	2.15
6.80	6.60	6.62	6.72	6.75	6.80	1.44	1.07	1.32	1.12	1.32	1.36	1.43	2.20
7.04	6.92	6.86	6.95	6.98	7.04	1.54	1.17	1.42	1.22	1.42	1.47	1.53	2.25
7.28	7.16	7.10	7.19	7.20	7.28	1.64	1.27	1.52	1.32	1.52	1.57	1.63	2.30
7.51	7.39	7.33	7.43	7.43	7.51	1.73	1.37	1.62	1.43	1.62	1.67	1.73	2.35
7.75	7.63	7.58	7.67	7.65	7.75	1.83	1.47	1.72	1.53	1.72	1.76	1.83	2.40
7.99	7.87	7.81	7.91	7.87	7.99	1.93	1.57	1.82	1.63	1.82	1.86	1.93	2.45

Table 14 — Standard Deviation of Mean Local Pressurant Fractions, Test Configuration 1

STANDARD DEVIATION OF MEAN LOCAL PRESSURANT FRACTIONS

LOCATIONS I																										TAU													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	2	3	4	5	6	7	8	9	10	11	12	13	14												
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000													
336	504	1	493	495	525	478	247	947	502	535	517	430	328	05																									
227	260	836	257	217	320	091	562	231	272	224	323	199	10																										
135	130	464	148	125	184	062	363	107	161	291	126	099	15																										
080	086	319	091	095	087	045	238	055	092	075	133	060	20																										
239	195	673	306	480	115	324	914	091	280	150	323	184	25																										
408	321	1	008	490	734	152	589	1	534	141	447	232	083	307																									
762	167	1	042	172	732	150	321	935	063	308	335	1	238	467																									
107	086	138	058	107	071	047	247	070	085	092	115	170	40																										
068	055	069	056	087	054	054	151	065	062	048	065	050	45																										
051	061	062	052	089	047	029	130	066	065	058	052	042	50																										
079	091	091	084	088	080	155	154	070	077	059	202	039	55																										
049	062	064	059	042	043	024	134	052	104	160	040	035	60																										
047	058	053	054	053	034	040	132	046	056	052	042	030	65																										
057	069	062	066	057	050	68	136	069	128	053	046	048	70																										
043	061	066	056	036	052	40	141	073	082	118	048	075	75																										
059	068	080	064	049	050	031	135	063	103	063	041	043	80																										
061	066	080	064	039	051	045	148	055	079	067	048	130	85																										
057	070	082	066	066	055	057	156	076	074	064	047	032	90																										
064	077	086	068	053	064	039	149	073	095	069	061	074	95																										
044	052	070	047	037	061	070	167	095	178	102	068	115	100																										
062	031	071	050	118	064	086	192	070	076	061	072	061	105																										
124	078	110	110	206	113	099	177	058	058	065	059	081	10																										
221	174	199	196	326	208	180	491	096	409	112	179	148	15																										
281	220	243	262	386	260	206	208	701	140	531	219	179	20																										
361	279	371	332	482	333	217	198	204	242	193	198	194	25																										
434	352	390	402	588	404	234	261	174	338	182	278	216	30																										
576	409	487	513	671	488	352	354	197	391	213	349	279	35																										
571	503	515	522	688	547	290	304	254	343	371	284	281	40																										
823	769	687	698	1	053	722	412	439	342	1	098	406	45																										
839	725	750	757	942	781	468	608	509	725	381	541	440	150																										
1	100	1	053	1	043	352	1	303	980	463	525	1	236																										
1	344	1	166	1	294	1	008	2	545	1	070	712	659																										
1	175	1	077	1	124	1	074	1	479	1	113	603	613																										
1	521	1	212	1	701	1	170	2	520	1	234	530	486																										
0	661	3	726	5	721	1	3223	715	1	348	597	2	840																										
13	597	4	90728	13715	744101	13	1	711	08615	43372	02873	92313	67859																										
1	412	1	384	1	357	1	389	1	421	1	413	583	531																										
1	499	1	468	1	444	1	475	1	503	1	500	539	485																										
1	579	1	534	1	525	1	557	1	581	1	582	448	344																										
1	645	1	614	1	590	1	622	1	644	1	646	450	420																										
1	712	1	680	1	637	1	688	1	707	1	713	492	418																										
1	790	1	753	1	716	1	766	1	784	1	790	353	247																										
1	857	1	823	1	804	1	833	1	847	1	857	381	275																										
1	924	1	890	1	871	1	901	1	910	1	924	408	304																										
1	991	1	957	1	940	1	967	1	974	1	991	436	332																										
2	050	2	024	2	007	2	035	2	037	2	058	463	360																										
2	125	2	091	2	074	2	102	2	100	2	125	490	388																										
2	192	2	158	2	143	2	169	2	164	2	192	519	417																										
2	259	2	226	2	210	2	236	2	227	2	259	545	445																										

Table 15 — Deviations of Mean Local Pressurant Fractions, Test Configuration 1

DEVIATIONS OF MEAN LOCAL PRESSURANT FRACTIONS													
LOCATIONS 1													
1	2	3	4	5	6	7	8	9	10	11	12	13	TAU
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-0.009	0.53	746	0.38	158	-234	105	-283	-130	-214	-204	-159	114	05
-0.00	-0.03	838	-102	137	-300	050	187	-038	-027	-148	-153	076	10
-0.18	-0.04	556	-064	079	-169	021	135	-004	068	-160	-113	004	15
-0.12	-0.36	309	-026	074	-063	-015	105	-020	031	-058	-091	-042	20
-0.71	0.33	-012	084	-104	008	-128	248	017	-035	-103	028	047	25
-154	064	-234	126	-216	001	-224	548	030	-058	-101	133	108	30
320	016	498	007	397	038	-145	-408	-018	188	-118	-558	-216	35
079	-019	099	-032	208	030	-034	-113	-052	093	-024	-130	-106	40
065	-028	016	-035	170	046	-063	-038	-054	074	-010	-087	-052	45
055	-028	019	-030	198	055	-051	-011	-069	055	-017	-082	-058	50
074	-004	-028	-011	235	084	-113	-044	-034	032	-018	-158	-056	55
059	-029	-063	-028	220	069	-064	035	-060	024	-070	-050	-048	60
058	-038	-084	-036	232	067	-061	034	-057	032	-026	-053	-064	65
065	-024	-065	-028	253	082	-100	037	-062	011	-014	-074	-079	70
066	-021	-073	-026	263	092	-143	043	-055	066	-059	-055	-052	75
060	-034	-082	-045	280	086	-078	041	-070	026	-041	-055	-068	80
068	-029	-081	-041	244	084	-074	047	-059	062	-037	-071	-112	85
066	-029	-080	-035	261	078	-059	037	-086	032	-044	-055	-074	90
074	-017	-021	-034	259	085	-084	048	-088	049	-037	-086	-097	95
104	007	-044	003	279	122	-059	034	-124	-002	-060	-088	-137	100
102	069	-105	043	153	139	-109	-020	-118	064	-081	-064	-074	105
104	098	-077	052	077	135	-141	012	-141	099	-082	-030	-107	110
103	134	-042	065	029	159	-057	-192	-086	-051	-070	-065	-058	115
107	105	-028	061	-019	178	-178	076	-311	118	-209	074	-056	120
062	174	-031	049	-074	132	-081	-041	-075	126	-150	-014	-078	125
055	226	-019	060	-096	146	-144	-055	-141	159	-158	-064	-097	130
001	308	-021	047	-127	145	-078	-090	-182	194	-190	-071	-069	135
090	328	044	139	-073	179	-181	-088	-139	120	-264	-048	-104	140
026	389	058	144	-194	217	-182	-198	-220	363	-257	-063	-082	145
078	359	078	199	-067	217	-129	-270	-323	169	-193	-010	-128	150
-001	397	-044	153	-225	171	-163	-171	-221	291	-241	-063	-012	155
-106	476	-146	208	-714	121	-065	-167	-220	529	-254	294	041	160
063	360	046	216	-212	207	-184	-121	-258	124	-245	075	-073	165
566	152	666	235	976	356	-364	-330	-129	-642	-176	-640	-668	170
3263	-964	2193	056	8543	080	-392	-1260	-656	-4625	-380	-3566	-3593	175
5043-15	5710	178-5	28135	942	-122	-651	-576625	147-26	40	506-21	22-5	807	180
292	332	275	300	229	302	-265	223	-272	-244	-260	-238	-289	185
321	331	302	319	286	328	-283	-241	-285	-242	-277	-277	-282	190
330	385	326	345	316	354	-305	-280	-305	-262	-297	-279	-316	195
356	385	336	354	327	363	-328	-268	-314	-272	-314	-290	-317	200
379	386	359	377	351	386	-331	-295	-145	-292	-332	-311	-310	205
403	391	384	394	401	403	-355	-317	-341	-322	-341	-346	-352	210
421	409	402	413	410	421	-370	-333	-357	-337	-357	-362	-368	215
440	427	421	431	435	440	-385	-348	-373	-333	-373	-377	-384	220
458	446	440	449	452	458	-400	-364	-388	-369	-388	-393	-399	225
476	464	458	468	469	476	-415	-379	-404	-384	-404	-408	-415	230
494	482	476	486	485	494	-430	-394	-419	-400	-419	-424	-430	235
512	500	495	504	502	512	-446	-410	-435	-415	-435	-439	-446	240
531	519	513	523	519	531	-461	-425	-450	-431	-450	-454	-461	245

9 CASES

Table 16A — Sealing Run 300, Test Configuration 2: Two 1.52 cm Nozzles

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 300																	
TIME (SEC)	P (BAR)	T (DEG K)	FILL- PRESSURANT	TANK	OBSTRUCTED GAS MIXING RUN 300		THERMOCOUPLES		LOCATION 1		LOCATION 2		COORDINATES				
					1	2	3	4	5	6	7	8	9	10	11	12	13
-5	301.8	301.7	301.5	301.7	301.0	301.7	299.8	299.7	299.3	300.5	300.1	299.7	300.0
-4	301.7	301.7	301.5	301.7	301.0	301.7	299.9	299.7	299.5	300.5	300.1	299.7	300.0
-3	301.8	301.6	301.5	301.7	301.0	301.7	299.9	299.6	299.5	300.5	300.2	299.7	300.0
-2	301.8	301.7	301.5	301.7	301.0	301.7	299.9	299.6	299.5	300.5	300.2	299.7	300.0
-1	301.8	301.6	301.5	301.7	301.0	301.7	299.9	299.6	299.5	300.5	300.2	299.7	300.0
0	301.8	301.6	301.5	301.7	301.0	301.7	299.9	299.6	299.5	300.5	300.2	299.7	300.0
1	302.6	302.2	301.6	302.2	301.8	302.9	300.6	301.8	301.0	301.9	301.5	301.0	301.0
2	306.6	306.5	302.9	306.4	305.2	307.0	304.4	305.9	304.7	305.9	305.3	305.2	304.8
3	308.7	309.1	304.5	309.1	307.5	309.1	307.0	308.5	307.4	308.7	308.0	307.5	307.4
4	311.2	311.4	307.0	311.5	309.9	311.4	308.8	310.0	308.9	310.4	309.2	309.5	309.3
5	313.1	313.3	309.0	313.6	311.6	312.8	309.7	310.8	310.4	312.3	310.7	310.7	310.2
6	313.7	313.9	310.2	314.1	312.3	313.7	310.5	310.8	310.4	312.3	310.7	310.7	310.2
7	314.0	314.3	311.5	314.4	312.8	313.9	310.6	311.2	311.0	313.6	312.7	310.9	310.9
8	314.2	314.4	312.3	314.5	312.8	314.0	310.9	311.6	311.0	313.6	312.7	310.9	310.9
9	314.5	314.5	312.9	314.6	312.8	314.3	311.0	311.2	310.9	313.2	311.1	311.3	311.3
10	314.5	314.5	313.1	314.6	313.2	314.2	310.9	311.5	311.0	313.2	311.0	311.3	311.3
11	314.3	314.5	313.4	314.5	312.6	314.2	311.0	311.4	310.9	313.2	311.2	311.2	311.2
12	314.2	314.3	313.8	314.4	312.2	314.2	310.8	311.4	311.0	312.8	311.3	311.2	311.2
13	314.0	314.0	313.8	314.1	312.3	313.8	311.1	311.3	310.9	312.8	311.3	311.2	311.3
14	313.9	314.1	313.7	314.2	312.3	313.8	310.9	311.1	310.7	312.8	311.0	311.1	311.1
15	313.8	313.8	313.5	313.9	312.2	313.7	310.7	310.9	310.6	312.5	311.0	311.0	311.0
16	313.8	313.8	313.4	314.0	312.0	313.6	310.7	310.7	310.6	312.3	311.0	310.9	311.0
17	313.8	313.8	313.3	313.8	311.9	313.6	310.5	310.7	310.6	312.3	311.1	310.9	311.1
18	313.6	313.4	313.2	313.7	311.9	313.2	310.4	310.7	310.3	312.2	310.8	310.5	310.7
19	313.3	313.1	313.1	313.3	312.0	313.2	310.1	309.7	310.2	311.6	310.4	309.9	310.2
20	312.5	312.3	312.7	312.5	311.7	312.2	309.5	309.4	309.7	311.3	310.0	309.6	309.9
21	312.2	312.0	312.3	312.1	311.6	311.5	309.4	309.1	309.4	310.9	309.7	309.2	309.5
22	312.1	311.9	312.2	312.0	311.6	311.5	309.3	308.9	309.3	310.7	309.7	308.9	309.5
23	311.9	311.6	311.9	311.8	311.4	311.5	309.2	308.9	309.3	310.4	309.6	308.8	309.4
24	311.7	311.1	311.6	311.6	311.2	311.2	309.0	308.9	309.1	310.1	309.5	308.8	309.2
25	311.6	311.1	311.6	311.5	311.1	310.9	308.8	308.8	309.0	309.8	309.5	308.6	309.1
26	311.4	310.8	311.2	311.2	310.9	310.8	308.8	308.7	308.8	309.5	309.3	308.5	308.9
27	311.0	310.5	311.0	311.0	310.8	310.5	308.6	308.5	308.7	309.0	309.2	308.3	308.8
28	310.2	309.4	310.0	310.1	309.9	309.5	308.0	307.7	307.9	308.0	308.3	307.2	308.0
29	309.3	308.5	308.9	309.1	309.3	308.7	307.2	306.7	306.9	307.3	307.7	305.9	306.8
30	308.8	308.1	309.3	308.7	308.0	307.3	305.9	305.4	305.7	306.7	307.1	305.1	306.0
31	308.1	307.3	307.8	308.0	308.0	307.5	305.8	305.5	305.6	306.1	306.3	304.7	305.5
32	307.6	306.9	307.1	307.4	307.5	307.0	305.3	305.2	305.2	305.9	305.9	304.5	305.0
33	307.2	306.5	306.7	307.0	307.1	306.6	305.1	304.9	304.9	305.4	305.5	304.4	304.8
34	306.8	306.1	306.4	306.6	306.7	306.3	304.8	304.6	304.5	305.1	305.1	304.0	304.6
35	306.6	305.8	306.0	306.3	306.4	305.9	304.5	304.2	304.3	304.8	305.1	303.8	304.3
36	306.2	305.6	305.8	305.9	306.2	305.9	304.4	303.8	304.0	304.5	304.8	303.5	304.0
37	306.1	305.5	305.6	305.9	306.2	305.7	304.1	303.6	303.8	304.3	304.5	303.3	303.9
38	305.7	305.2	305.3	305.5	305.5	305.4	303.8	303.5	303.5	304.0	304.2	303.1	303.5

(Table Continues)

Table 16A — Scaling Run 300, Test Configuration 2: Two 1.52 cm Nozzles (Continued)

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107														
PRESSURANT		FILL-		THERMOCOUPLES		FOU - TOTAL		TANK		LOCATION T		T (DEG K)		FILE
P	T	P	T	P	T	P	T	P	T	P	T	P	T	
(S.C.) (BAR) (DEG K)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	
97	1.743	305.3	304.9	305.0	305.1	305.3	305.1	303.4	303.2	303.2	303.8
107	1.755	305.1	304.6	304.8	304.8	305.2	304.9	303.2	303.2	303.2	303.1
117	1.750	304.9	304.5	304.6	304.6	304.9	304.8	303.1	302.8	302.7	303.0
127	1.747	304.6	304.4	304.5	304.4	305.0	304.5	302.9	302.5	303.3	302.6
137	1.753	304.5	304.2	304.4	304.3	304.6	304.4	302.7	302.4	302.5	302.8
147	1.740	304.4	304.1	304.2	304.1	304.5	304.4	302.6	302.3	303.1	302.7
157	1.742	304.2	304.0	304.1	304.0	304.3	304.2	302.5	302.2	303.0	302.5
167	1.754	304.1	303.9	304.1	303.9	304.3	304.0	302.4	302.1	302.9	302.4
177	1.751	304.0	303.9	304.0	303.8	304.3	304.0	302.3	302.0	302.1	302.2
187	1.766	303.9	303.8	303.9	303.8	304.2	304.0	302.2	301.9	302.0	302.2
197	1.766	303.9	303.8	303.9	303.7	304.1	304.0	302.2	301.8	302.0	302.1
207	1.768	303.9	303.8	303.8	303.6	304.0	303.9	302.2	301.7	302.0	302.0
217	1.754	303.9	303.8	303.8	303.6	304.0	303.9	302.2	301.7	302.0	302.0
227	1.753	303.8	303.8	303.8	303.6	304.1	303.9	302.1	301.7	302.0	302.0
237	1.753	303.8	303.8	303.8	303.6	304.1	303.9	302.1	301.7	302.0	302.0
247	1.734	303.8	303.7	303.8	303.6	304.0	303.9	302.0	301.7	302.0	302.0
257	1.726	303.8	303.7	303.8	303.6	304.0	303.9	302.0	301.7	302.0	302.0
267	1.746	303.8	303.7	303.8	303.6	304.0	303.9	302.0	301.7	302.0	302.0
277	1.763	303.8	303.6	303.8	303.5	304.0	303.8	302.0	301.6	301.8	301.9
287	1.738	303.8	303.6	303.8	303.5	304.0	303.8	302.0	301.5	301.7	301.8
297	1.750	303.8	303.6	303.8	303.5	304.0	303.8	301.9	301.5	301.7	301.8
307	1.747	303.8	303.6	303.8	303.5	304.0	303.8	301.9	301.5	301.7	301.8

Table 16B — Scaling Run 301, Test Configuration 2: Two 1.52 cm Nozzles

TIME (SEC)	P (BAR)	T (DEC K)	P (BAR)	T (DEC K)	OBSTRUCTED GAS MIXING RUN 301													R (M)	T-ETA (DEC M)	C (M)																						
					THERMOCOUPLES																																					
LOCATION 1				LOCATION 2																																						
T (DEC K)				T (DEC K)																																						
1	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.7	300.3	300.5	1	0.229	0.0	0.152	1	0.229	0.0	0.152																					
2	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.6	300.3	300.6	2	0.229	0.0	0.000	2	0.229	0.0	0.000																					
3	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.8	300.3	300.6	3	0.076	0.0	0.152	3	0.076	0.0	0.152																					
4	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.7	300.3	300.5	4	0.192	0.0	0.076	4	0.192	0.0	0.076																					
5	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.7	300.3	300.4	5	0.076	0.0	0.076	5	0.076	0.0	0.076																					
6	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.7	300.3	300.4	6	0.152	0.0	0.152	6	0.152	0.0	0.152																					
7	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.7	300.3	300.4	7	0.229	0.0	0.762	7	0.229	0.0	0.762																					
8	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.7	300.3	300.4	8	0.229	0.0	0.914	8	0.229	0.0	0.914																					
9	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.7	300.3	300.4	9	0.229	0.0	0.914	9	0.229	0.0	0.914																					
10	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.7	300.3	300.4	10	0.229	0.0	0.914	10	0.229	0.0	0.914																					
11	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.7	300.3	300.4	11	0.229	0.0	0.914	11	0.229	0.0	0.914																					
12	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.7	300.3	300.4	12	0.229	0.0	0.914	12	0.229	0.0	0.914																					
13	302.3	302.1	302.0	30.2	301.5	302.2	300.4	300.3	299.9	301.0	300.7	300.3	300.4	13	0.229	0.0	0.914	13	0.229	0.0	0.914																					

(Table Continues)

Table 16B -- Scaling Run 301, Test Configuration 2: Two 1.52 cm Nozzles (Continued)

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107															
PRESSURANT FILL- THERMOCOUPLES			LOCATION 1												
FOR - TOTAL TANK			T (DEG K)												
TIME	P	T	1	2	3	4	5	6	7	8	9	10	11	12	13
(SEC)	(BAR)	(DEG K)	(BAR)												
97	000	000	305.7	305.4	305.5	305.5	305.6	305.4	303.8	303.6	303.5	304.2	304.2	303.6	303.7
107	000	000	305.4	305.1	305.2	305.2	305.3	305.2	303.6	303.5	303.3	304.1	303.9	303.3	303.6
117	000	000	305.2	304.9	305.0	305.0	305.2	305.0	303.5	303.1	303.1	303.8	303.8	303.1	303.3
127	000	000	305.1	304.8	304.9	304.9	305.2	304.9	303.3	303.1	303.0	303.7	303.6	303.1	303.3
137	000	000	304.9	304.6	304.7	304.6	305.2	304.7	303.1	303.0	302.9	303.6	303.4	303.0	303.1
147	000	000	304.8	304.5	304.6	304.5	305.2	304.6	303.1	303.1	303.0	303.8	303.7	303.2	303.1
157	000	000	304.6	304.3	304.6	304.5	305.2	304.5	303.0	302.7	302.7	303.5	303.3	302.9	303.0
167	000	000	304.6	304.4	304.5	304.4	305.2	304.5	302.8	302.5	302.6	303.3	303.1	302.7	302.7
177	000	000	304.5	304.3	304.5	304.3	305.2	304.5	302.7	302.5	302.7	303.4	303.0	302.8	303.0
187	000	000	304.5	304.2	304.5	304.2	305.1	304.5	303.0	302.4	302.5	303.1	303.1	302.8	302.8
197	000	000	304.4	304.2	304.4	304.1	305.0	304.4	302.8	302.4	302.5	303.1	302.9	302.6	302.7
207	000	000	304.3	304.2	304.4	304.0	304.9	304.3	302.6	302.3	302.4	303.1	302.9	302.5	302.5
217	000	000	304.2	304.2	304.3	304.0	304.6	304.3	303.6	303.4	303.3	304.5	303.7	303.4	303.8
227	000	000	304.2	304.2	304.2	304.0	304.6	304.4	302.9	302.4	302.5	303.3	303.1	302.9	303.8
237	000	000	304.2	304.1	304.2	304.0	304.6	304.3	302.7	302.5	302.8	303.7	303.0	302.8	302.4
247	000	000	304.2	304.0	304.3	304.0	304.6	304.3	302.5	302.2	302.4	303.1	302.6	302.4	302.4
257	000	000	304.2	304.0	304.4	304.0	304.6	304.3	302.7	302.4	302.8	303.2	302.8	302.8	302.7
267	000	000	304.2	304.0	304.3	303.9	304.3	304.2	302.9	302.2	302.3	303.0	302.8	302.5	302.5
277	000	000	304.2	303.9	304.2	303.9	304.6	304.2	302.5	302.1	302.3	303.0	302.6	302.3	302.4
287	000	000	304.1	303.9	304.2	303.9	304.3	304.2	302.4	302.1	302.3	302.9	302.5	302.4	302.3
297	000	000	304.1	303.9	304.2	303.9	304.3	304.2	302.4	302.0	302.3	302.9	302.5	302.4	302.4
307	000	000	304.0	303.9	304.2	303.9	304.3	304.1	302.4	302.2	302.4	303.3	302.7	302.4	302.5
317	000	000	304.0	303.9	304.1	303.9	304.4	304.0	302.4	302.0	302.3	302.9	302.5	302.3	302.4
327	000	000	304.0	303.9	304.0	303.9	304.5	304.0	302.3	302.0	302.3	303.0	302.5	302.3	302.4

Table 16C — Scaling Run 302, Test Configuration 2: Two 1.52 cm Nozzles

TIME (SEC)	P (BAR)	T (K)	FILL- PRESSURANT TANK	3 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 302	THERMOCOUPLES LOCATION I (DEG K)	1	2	3	4	5	6	7	8	9	10	11	12	13	COORDINATES I R (M) THETA (DEG) (M)
-5	1.039	302.4	302.3	302.3	302.3	301.7	302.3	300.6	300.3	300.1	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	1 0.229 00 0 15
-4	1.030	302.4	302.2	302.2	302.3	301.7	302.3	300.6	300.4	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	2 0.229 00 0 00
-3	1.038	302.4	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	3 0.229 00 0 152
-2	1.061	302.4	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	4 0.102 00 0 076
-1	1.033	302.4	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	5 0.076 00 0 076
0	1.064	302.4	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	6 0.152 00 0 152
1	1.308	302.4	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	7 0.229 00 0 762
2	1.130	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	8 0.229 00 0 591
3	1.173	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	9 0.076 00 0 076
4	1.245	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	10 0.229 00 0 076
5	1.315	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	11 0.152 00 0 762
6	1.337	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	12 0.229 00 0 514
7	1.410	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	13 0.229 00 0 838
8	1.409	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
9	1.472	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
10	1.536	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
11	1.549	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
12	1.601	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
13	1.621	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
14	1.639	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
15	1.712	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
16	1.737	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
17	1.767	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
18	1.783	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
19	1.773	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
20	1.771	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
21	1.765	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
22	1.769	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
23	1.770	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
24	1.770	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
25	1.769	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
26	1.751	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
27	1.746	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
28	1.754	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
29	1.778	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
30	1.762	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
31	1.749	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
32	1.765	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
33	1.756	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
34	1.756	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
35	1.749	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
36	1.775	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
37	1.750	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
38	1.735	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
39	1.735	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	
40	1.735	302.5	302.2	302.2	302.3	301.7	302.3	300.6	300.3	300.0	301.0	300.8	300.6	300.6	300.6	300.6	300.6	300.6	

(Table Continues)

Table 16C -- Scaling Run 302, Test Configuration 2: Two 1.52 cm Nozzles (Continued)

S C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107																	
PRESSURANT		FILL		THERMOCOUPLES		TANK		LOCATION		T (DEG K)		P		T (DEG K)		P	
FOR - TOTAL		TANK		T		P		T		P		T		P		T	
TIME	(SEC)	(BAR)	(DEG K)	1	2	3	4	5	6	7	8	9	10	11	12	13	
97	000	000	000	305.0	305.3	305.5	305.5	305.7	305.5	303.9	303.9	303.7	304.4	304.4	303.6	303.9	
107	000	1.738	000	305.5	305.1	305.2	305.2	305.3	305.3	303.9	303.5	303.8	304.0	304.2	303.6	303.8	
117	000	1.762	000	305.2	304.9	305.2	305.1	305.3	305.2	303.7	304.1	305.2	307.1	305.5	306.0	306.5	
127	000	1.769	000	305.1	304.8	305.0	304.9	305.2	305.0	303.4	303.1	303.8	301.6	303.1	303.4		
137	000	1.736	000	305.0	304.6	304.9	304.8	305.1	304.9	303.3	303.1	302.9	303.6	303.4	303.1	303.7	
147	000	1.746	000	304.8	304.5	304.8	304.5	305.1	304.8	303.1	302.9	302.9	303.5	303.3	303.0	303.1	
157	000	1.748	000	304.8	304.5	304.8	304.5	305.1	304.8	303.1	302.9	302.9	303.5	303.3	303.0	303.1	
167	000	1.754	000	304.8	304.5	304.8	304.5	305.1	304.8	303.1	302.9	302.9	303.5	303.3	303.0	303.1	
177	000	1.754	000	304.6	304.3	304.6	304.3	304.9	304.6	303.0	302.8	302.8	303.4	303.2	302.9	303.0	
187	000	1.756	000	304.5	304.4	304.5	304.4	304.8	304.5	302.9	302.6	302.7	303.4	303.1	302.9	302.9	
197	000	1.757	000	304.5	304.4	304.5	304.4	304.8	304.5	302.9	302.5	302.6	303.3	303.1	302.8	302.9	
207	000	1.756	000	304.5	304.3	304.5	304.2	304.9	304.5	302.8	302.4	302.6	303.1	302.9	302.7	302.8	
217	000	1.744	000	304.4	304.2	304.5	304.1	304.8	304.5	302.8	302.4	302.6	303.1	302.9	302.7	302.8	
227	000	1.740	000	304.4	304.2	304.5	304.1	304.8	304.5	302.8	302.5	302.5	303.1	302.9	302.7	302.8	
237	000	1.755	000	304.3	304.2	304.5	304.0	304.8	304.5	302.7	302.4	302.4	303.1	302.9	302.7	302.8	
247	000	1.751	000	304.4	304.2	304.5	304.0	304.8	304.5	302.7	302.4	302.5	303.1	302.8	302.7	302.7	
257	000	1.738	000	304.4	304.1	304.4	304.0	304.6	304.4	302.7	302.4	302.5	303.1	302.9	302.7	302.9	
267	000	1.746	000	304.2	304.1	304.4	304.0	304.6	304.4	302.7	302.4	302.5	303.1	302.9	302.7	302.7	
277	000	1.753	000	304.2	304.1	304.4	303.9	304.5	304.4	302.7	302.3	302.5	303.1	302.8	302.5	302.6	
287	000	1.752	000	304.2	304.1	304.4	303.9	304.5	304.4	302.7	302.3	302.4	303.1	302.8	302.5	302.6	
297	000	1.752	000	304.2	304.0	304.4	304.0	304.5	304.4	302.6	302.3	302.4	303.1	302.8	302.5	302.6	
307	000	1.760	000	304.2	304.0	304.3	303.9	304.5	304.4	302.6	302.3	302.5	303.1	302.7	302.6	302.5	
317	000	1.762	000	304.2	304.0	304.3	303.9	304.5	304.3	302.6	302.3	302.5	303.1	302.7	302.6	302.5	
327	000	1.750	000	304.1	303.9	304.3	303.9	304.5	304.3	302.6	302.3	302.5	303.1	302.7	302.5	302.4	
337	000	1.746	000	304.2	304.0	304.3	303.9	304.5	304.3	302.6	302.3	302.5	303.1	302.7	302.5	302.4	
347	000	1.746	000	304.1	303.9	304.3	303.9	304.5	304.3	302.6	302.3	302.5	303.1	302.7	302.5	302.4	
357	000	1.741	000	304.1	303.9	304.3	303.9	304.5	304.3	302.6	302.3	302.5	303.1	302.7	302.5	302.4	
367	000	1.741	000	304.1	303.9	304.3	303.9	304.5	304.3	302.6	302.3	302.5	303.1	302.7	302.5	302.4	

Table 16D — Scaling Run 306, Test Configuration 2: Two 1.52 cm Nozzles

3 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 306															
PRESSURANT FILL- FOR - TOTAL. YANK			THERMOCOUPLES												
TIME P	Y	P	LOCATION 1 T(DEC K)												
(SEC)	(BAR)	(DEC K)	1	2	3	4	5	6	7	8	9	10	11	12	13
-5	0.000	1.062	298.4	298.2	298.2	298.2	297.5	298.3	297.0	297.0	297.1	297.4	297.2	297.0	296.9
-4	0.000	1.035	298.3	298.2	298.2	298.2	297.5	298.3	297.0	297.0	297.1	297.4	297.2	296.9	296.9
-3	0.000	1.033	298.4	298.2	298.2	298.2	297.5	298.3	296.9	297.0	297.1	297.4	297.2	296.9	296.9
-2	0.000	1.034	298.4	298.2	298.2	298.2	297.5	298.3	297.0	297.0	297.2	297.0	297.1	296.9	296.9
-1	0.000	1.070	298.4	298.2	298.1	298.2	297.5	298.3	296.9	297.0	297.2	297.0	297.1	296.9	296.9
0	6.351	288.5	1.041	298.3	298.2	298.2	297.5	298.3	296.9	297.0	297.2	297.0	297.1	296.9	296.8
1	6.204	292.2	1.090	300.3	299.8	299.5	299.7	299.0	300.5	297.9	297.9	297.4	297.0	296.9	296.9
2	6.041	289.5	1.099	304.5	304.4	304.3	304.5	302.7	304.8	300.9	300.9	300.9	300.9	299.8	299.8
3	5.795	287.8	1.174	306.6	306.7	302.3	306.7	304.6	306.7	300.8	300.9	300.9	300.9	300.9	300.9
4	5.532	286.3	1.217	308.8	308.9	304.5	309.2	307.0	308.9	300.9	300.9	300.9	300.9	300.9	300.9
5	5.320	285.1	1.300	310.0	310.1	306.4	310.2	308.9	310.9	306.5	306.5	306.5	306.5	306.5	306.5
6	5.119	284.5	1.321	310.2	310.5	307.5	310.6	308.9	310.9	306.5	306.5	306.5	306.5	306.5	306.5
7	4.913	283.7	1.353	310.8	311.0	308.5	311.2	309.4	310.8	306.5	306.5	306.5	306.5	306.5	306.5
8	4.712	283.0	1.430	311.1	311.3	309.3	311.5	309.5	310.9	306.5	306.5	306.5	306.5	306.5	306.5
9	4.507	282.4	1.470	311.0	311.2	309.7	311.4	309.9	311.0	306.5	306.5	306.5	306.5	306.5	306.5
10	4.327	282.0	1.506	310.9	311.0	309.9	311.2	309.4	310.8	306.5	306.5	306.5	306.5	306.5	306.5
11	4.266	281.4	1.535	311.0	311.1	310.2	311.3	309.3	310.9	306.5	306.5	306.5	306.5	306.5	306.5
12	4.119	280.9	1.553	310.9	311.0	310.3	311.0	309.3	310.7	306.5	306.5	306.5	306.5	306.5	306.5
13	3.983	280.4	1.627	310.9	311.0	310.2	311.1	309.2	310.6	306.5	306.5	306.5	306.5	306.5	306.5
14	3.882	279.8	1.641	310.8	310.8	310.2	311.0	308.9	310.5	306.5	306.5	306.5	306.5	306.5	306.5
15	3.753	279.2	1.681	310.5	310.4	310.2	310.7	308.8	310.3	306.5	306.5	306.5	306.5	306.5	306.5
16	3.627	278.8	1.736	310.5	310.3	310.1	310.6	308.8	310.2	306.5	306.5	306.5	306.5	306.5	306.5
17	3.506	278.5	1.756	310.4	310.2	310.0	310.4	308.8	310.0	306.5	306.5	306.5	306.5	306.5	306.5
18	3.442	283.0	1.755	310.0	309.8	309.8	310.2	308.9	310.2	306.5	306.5	306.5	306.5	306.5	306.5
19	3.437	283.0	1.794	309.7	309.6	309.8	309.7	308.7	309.4	306.5	306.5	306.5	306.5	306.5	306.5
20	0.000	0.000	1.767	308.2	308.0	309.5	309.2	308.1	309.0	306.5	306.5	306.5	306.5	306.5	306.5
21	0.000	0.000	1.728	308.8	308.5	309.1	308.8	308.1	308.6	306.5	306.5	306.5	306.5	306.5	306.5
22	0.000	0.000	1.766	308.6	308.2	308.9	308.8	308.1	308.3	306.5	306.5	306.5	306.5	306.5	306.5
23	0.000	0.000	1.772	308.6	308.0	308.7	308.5	307.9	308.1	306.5	306.5	306.5	306.5	306.5	306.5
24	0.000	0.000	1.752	308.3	307.8	308.4	308.2	307.6	307.9	306.5	306.5	306.5	306.5	306.5	306.5
25	0.000	0.000	1.776	308.1	307.6	308.2	308.1	307.5	307.7	306.5	306.5	306.5	306.5	306.5	306.5
26	0.000	0.000	1.760	308.0	307.4	308.0	308.0	307.3	307.3	306.5	306.5	306.5	306.5	306.5	306.5
27	0.000	0.000	1.760	307.8	307.1	307.7	307.8	307.1	307.3	306.5	306.5	306.5	306.5	306.5	306.5
32	0.000	0.000	1.773	306.6	306.4	306.7	306.8	306.4	306.7	306.5	306.5	306.5	306.5	306.5	306.5
37	0.000	0.000	1.746	306.0	305.3	305.8	306.0	305.6	305.9	306.5	306.5	306.5	306.5	306.5	306.5
42	0.000	0.000	1.750	305.3	304.3	304.8	305.0	304.8	304.5	306.5	306.5	306.5	306.5	306.5	306.5
47	0.000	0.000	1.753	304.5	303.4	304.0	304.1	304.0	303.8	306.5	306.5	306.5	306.5	306.5	306.5
52	0.000	0.000	1.763	303.9	302.1	303.5	303.6	303.6	303.4	306.5	306.5	306.5	306.5	306.5	306.5
57	0.000	0.000	1.754	303.5	302.8	303.2	303.2	303.3	303.1	306.5	306.5	306.5	306.5	306.5	306.5
62	0.000	0.000	1.734	303.1	302.6	302.9	302.9	302.9	302.9	306.5	306.5	306.5	306.5	306.5	306.5
67	0.000	0.000	1.762	302.9	302.4	302.6	302.7	302.7	302.7	306.5	306.5	306.5	306.5	306.5	306.5
72	0.000	0.000	1.747	302.5	302.1	302.4	302.4	302.4	302.4	306.5	306.5	306.5	306.5	306.5	306.5
77	0.000	0.000	1.743	302.3	301.8	302.2	302.2	302.2	302.2	306.5	306.5	306.5	306.5	306.5	306.5
87	0.000	0.000	1.754	301.9	301.5	301.8	301.7	302.0	301.8	306.5	306.5	306.5	306.5	306.5	306.5

(Table Continues)

Table 16D — Scaling Run 306, Test Configuration 2: Two 1.52 cm Nozzles (Continued)

3 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107														
PRESSURANT		FILL-		THERMOCOUPLES		FOU - TOTAL		TANK		LOCATION 1		T (DEG K)		
TIME	P	T	P	T	P	T	P	T	P	T	P	T	P	T
(SEC)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)
97	000	000	1.749	301.7	301.2	301.5	301.3	301.8	301.3	300.0	300.0	300.2	300.2	299.7
107	000	000	1.751	301.4	301.0	301.2	301.2	301.7	301.2	299.7	299.5	299.7	299.5	299.4
117	000	000	1.753	301.2	300.9	301.0	301.0	301.7	301.0	299.5	299.7	299.7	299.5	299.4
127	000	000	1.756	301.0	300.8	300.9	300.8	301.6	300.9	299.5	299.5	299.5	299.5	299.3
137	000	000	1.748	300.9	300.6	300.6	300.6	301.3	300.9	299.3	299.4	299.5	299.7	299.4
147	000	000	1.740	300.9	300.6	300.6	300.6	301.3	300.9	299.3	299.3	299.4	299.5	299.1
157	000	000	1.748	300.8	300.5	300.6	300.4	301.4	300.8	299.2	299.2	299.3	299.5	299.0
167	000	000	1.744	300.8	300.5	300.6	300.4	301.2	300.8	299.0	299.1	299.3	299.5	298.9
177	000	000	1.745	300.7	300.4	300.6	300.3	300.9	300.8	299.0	299.0	299.3	299.5	298.8
187	000	000	1.745	300.6	300.4	300.5	300.3	300.9	300.7	299.0	299.0	299.3	299.5	298.9
197	000	000	1.740	300.6	300.4	300.5	300.3	300.9	300.6	299.0	298.9	299.2	299.4	298.8
207	000	000	1.723	300.6	300.4	300.5	300.3	300.9	300.6	299.0	298.8	299.1	299.4	298.8
217	000	000	1.740	300.6	300.3	300.4	300.2	300.5	300.6	299.0	298.8	299.2	299.5	298.8
227	000	000	1.747	300.5	300.3	300.4	300.2	300.4	300.5	299.0	298.8	299.1	299.3	298.8
237	000	000	1.731	300.5	300.2	300.4	300.2	300.3	300.5	298.8	298.8	299.0	299.2	298.8
247	000	000	1.729	300.5	300.2	300.4	300.2	300.4	300.5	298.8	298.8	299.0	299.2	298.8
257	000	000	1.743	300.4	300.3	300.3	300.2	300.4	300.5	298.8	298.8	299.0	299.1	298.8
267	000	000	1.746	300.3	300.2	300.2	300.0	300.6	300.4	298.8	298.8	299.0	299.2	298.7

Table 16E — Scaling Run 307, Test Configuration 2: Two 1.52 cm Nozzles

5 CMETER CHAMBER OBSTRUCTED GAS MIXING RUN 307																			
PRESSURANT FILL- TANK										THERMOCOUPLES									
FOR - TOTAL, LOCATION 1										LOCATION 1									
TIME (SEC)	P (BAR)	T (DEG K)	1	2	3	4	5	6	7	8	9	10	11	12	13	I	R (M)	THETA 2 (DEG)	2
-5	...	...	299.1	299.0	299.0	299.0	298.3	299.1	297.7	298.0	297.7	298.1	297.8	297.6	297.7	1	0.229	0.0	152
-4	...	...	299.1	299.0	299.0	299.0	298.4	299.1	297.6	298.0	297.7	298.1	297.8	297.6	297.7	2	0.229	0.0	0.000
-3	...	...	299.1	299.0	299.0	299.0	298.4	299.1	297.6	298.0	297.7	298.1	297.8	297.6	297.7	3	0.076	0.0	152
-2	...	...	299.1	299.0	299.0	299.0	298.4	299.1	297.6	298.0	297.7	298.1	297.8	297.6	297.7	4	0.102	0.0	0.076
-1	...	...	299.1	299.0	299.0	299.0	298.3	299.1	297.7	298.0	297.7	298.1	297.8	297.6	297.7	5	0.076	0.0	-0.076
0	6.286	297.1	300.2	299.0	299.0	299.0	298.8	299.2	298.2	299.7	299.0	299.2	299.0	298.7	298.6	6	0.152	0.0	152
1	6.042	291.3	304.0	304.2	300.5	304.0	304.2	304.5	301.6	304.1	302.4	303.2	302.4	302.7	302.4	7	0.229	0.0	0.762
2	5.886	299.0	306.5	306.6	302.3	306.4	304.9	306.6	302.6	305.9	304.2	305.2	304.6	304.4	304.1	8	0.229	0.0	0.991
3	5.646	287.3	308.0	309.0	304.5	309.0	307.3	308.8	305.5	307.7	306.1	307.3	305.9	306.3	306.0	9	0.076	0.0	0.076
4	5.404	286.0	310.2	310.6	306.6	310.7	309.3	310.2	307.0	308.5	307.6	308.8	307.5	307.6	307.6	10	0.229	0.0	0.076
5	5.194	283.4	310.7	311.1	307.6	311.2	309.3	310.6	307.9	308.2	309.5	309.8	309.8	309.8	308.4	11	0.152	0.0	0.762
6	4.981	284.5	311.2	311.6	308.9	311.6	309.9	311.2	308.5	309.3	309.2	310.2	309.1	308.8	308.8	12	0.229	0.0	0.514
7	4.859	283.7	311.6	311.6	309.7	311.6	310.0	311.3	308.7	309.4	309.3	310.3	308.9	308.9	309.0	13	0.229	0.0	0.638
8	4.676	283.2	311.7	311.9	310.2	312.0	310.2	311.6	308.9	309.4	309.4	310.7	309.0	309.0	309.0				
9	4.509	282.0	311.8	311.7	310.4	311.9	310.6	311.5	308.6	309.4	309.4	310.6	309.1	308.9	308.9				
10	4.319	282.2	311.8	311.9	310.8	312.0	310.2	311.6	308.7	309.4	309.4	310.6	309.1	308.9	308.9				
11	4.171	281.6	311.6	311.6	310.9	311.7	309.9	311.4	308.6	309.4	309.2	310.6	309.0	308.9	308.9				
12	4.007	281.1	311.6	311.7	310.9	311.9	309.8	311.5	308.7	309.4	309.8	310.8	310.5	308.7	308.8				
13	3.952	280.5	311.3	311.3	310.9	311.5	309.7	311.0	308.6	309.1	309.0	310.3	309.9	308.7	308.8				
14	3.805	279.8	311.1	311.1	310.8	311.2	309.5	311.0	308.5	309.1	308.9	310.1	308.9	308.7	308.8				
15	3.684	279.5	311.2	311.1	310.7	311.4	309.6	311.0	308.5	309.9	308.8	310.1	308.7	308.7	308.8				
16	3.554	289.2	315.2	311.1	310.8	311.3	236.8	235.4	308.2	308.7	308.6	310.0	308.5	308.4	308.4				
17	3.481	284.2	310.8	310.7	310.6	310.9	309.1	310.5	307.9	308.5	308.3	309.7	308.1	308.0	308.0				
18	3.487	283.5	310.3	310.2	310.4	310.4	309.3	309.8	307.5	307.9	308.1	309.2	307.6	307.6	307.8				
19	...	...	310.0	309.7	310.1	310.0	309.0	309.5	307.3	307.7	308.0	308.9	307.6	307.3	307.5				
20	...	...	309.5	309.4	309.8	309.5	308.8	309.2	307.0	307.6	307.8	308.5	307.4	307.1	307.4				
21	...	...	309.3	309.1	309.5	309.1	308.7	308.8	306.6	307.3	307.6	308.2	307.3	306.8	307.0				
22	...	...	309.1	308.8	309.4	309.0	308.7	308.4	306.3	307.2	307.4	308.1	307.0	306.6	306.8				
23	...	...	308.8	308.7	309.0	308.8	308.5	308.0	305.9	306.9	307.3	307.7	306.7	306.2	306.4				
24	...	...	308.5	308.4	308.8	308.7	308.4	308.1	305.9	306.7	307.0	307.5	306.6	305.9	306.3				
25	...	...	308.4	308.2	308.8	308.4	308.2	307.8	305.8	306.6	306.8	307.3	306.4	305.6	306.0				
26	...	...	308.3	308.1	308.5	308.3	308.1	307.9	305.1	306.4	306.6	307.0	306.1	305.2	305.8				
27	...	...	307.3	307.0	307.4	307.4	307.3	306.7	304.8	305.5	305.8	305.9	305.5	304.2	304.9				
28	...	...	306.5	306.0	306.5	306.4	306.6	305.8	304.3	304.7	305.0	305.0	304.9	303.7	304.4				
29	...	...	305.9	305.1	305.6	305.5	305.8	305.2	303.6	304.0	304.2	304.4	304.2	302.9	303.5				
30	...	...	305.3	304.5	304.9	305.1	305.3	304.8	303.1	303.4	303.6	303.7	303.7	302.4	303.1				
31	...	...	305.0	304.3	304.4	304.5	304.9	304.2	302.7	303.0	303.1	303.3	303.1	301.9	302.6				
32	...	...	304.5	304.0	303.9	304.2	304.6	303.8	302.4	302.5	302.7	303.1	302.7	301.5	302.2				
33	...	...	304.2	303.6	303.8	303.9	304.3	303.8	302.3	302.4	302.6	302.6	302.6	301.5	302.0				
34	...	...	304.0	303.3	303.5	303.6	303.8	303.4	302.1	302.3	302.4	302.3	302.4	301.5	301.8				

(Table Continues)

Table 16E — Sealing Run 307, Test Configuration 2: Two 1.52 cm Nozzles (Continued)

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107															
PRESSURANT FILL TANK		THERMOCOUPLES		TANK LOCATION		T (DEG K)		T (DEG K)		T (DEG K)		T (DEG K)		T (DEG K)	
TIME	P	T	P	T	P	T	P	T	P	T	P	T	P	T	T
(SEC)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(BAR)	(DEG K)	(DEG K)
71	0.00	1.733	303.6	303.1	303.2	303.3	303.7	303.1	301.8	301.8	302.3	302.0	301.0	301.6	13
76	0.00	1.739	303.3	302.9	303.0	303.1	303.4	302.9	301.5	301.6	302.0	301.4	301.3	300.9	301.2
86	0.00	1.741	303.0	302.4	302.6	302.7	303.0	302.6	301.2	301.2	301.4	301.4	301.3	300.7	301.0
96	0.00	1.730	302.6	302.3	302.4	302.4	302.7	302.4	300.9	300.9	300.9	301.1	301.0	300.4	300.9
106	0.00	1.730	302.4	302.0	302.3	302.2	302.3	302.2	300.6	300.8	300.9	300.9	300.8	300.3	300.5
116	0.00	1.735	302.2	301.8	302.0	302.0	302.1	302.0	300.4	300.6	300.6	300.8	300.6	300.2	300.3
126	0.00	1.736	302.0	301.7	301.8	301.8	302.0	301.8	300.3	300.4	300.4	300.6	300.4	300.1	300.2
136	0.00	1.734	301.8	301.6	301.8	301.6	302.0	301.7	300.2	300.2	300.3	300.4	300.2	300.0	300.1
146	0.00	1.734	301.8	301.5	301.7	301.4	302.0	301.6	300.0	300.2	300.2	300.4	300.2	299.9	300.0
156	0.00	1.731	301.7	301.3	301.5	301.3	302.0	301.5	300.0	300.1	300.2	300.3	300.0	299.9	300.0
166	0.00	1.748	301.6	301.2	301.5	301.2	301.8	301.5	300.0	300.0	300.2	300.2	300.0	299.9	299.9
176	0.00	1.748	301.5	301.2	301.5	301.2	301.8	301.5	299.9	300.0	300.1	300.2	299.9	299.7	299.8
186	0.00	1.739	301.5	301.2	301.5	301.2	301.8	301.5	299.8	299.9	300.0	300.2	299.9	299.7	299.7
196	0.00	1.770	301.4	301.2	301.5	301.1	301.8	301.5	299.7	299.9	300.0	300.2	300.0	299.6	299.6
206	0.00	1.745	301.3	301.2	301.5	301.1	301.6	301.5	299.7	299.8	300.0	300.2	299.8	299.6	299.7
216	0.00	1.770	301.3	301.1	301.5	301.0	301.7	301.4	299.6	299.7	300.0	300.2	299.9	299.6	299.6
226	0.00	1.760	301.3	301.1	301.5	301.0	301.7	301.3	299.6	299.7	300.0	300.0	299.9	299.5	299.6
236	0.00	1.735	301.3	301.0	301.4	301.0	301.6	301.3	299.7	299.6	300.0	300.0	299.7	299.5	299.5
246	0.00	1.731	301.2	301.0	301.3	300.9	301.6	301.3	299.6	299.6	299.9	300.0	299.7	299.5	299.5
256	0.00	1.747	301.2	301.0	301.3	300.9	301.5	301.3	299.5	299.6	299.9	300.1	299.6	299.5	299.5

Table 16F — Scaling Run 308, Test Configuration 2: Two 1.52 cm Nozzles

TIME (SEC)	P (BAR)	T (DEG K)	FOR - TOTAL, P	PRESSURE FILL- TANK	9 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 308 THERMOCOUPLES LOCATION 1 (DEG K)	COORDINATES												
						1	2	3	4	5	6	7	8	9	10	11	12	13
-5	...	...	...	1.744	302.6	302.4	302.6	302.4	302.7	302.6	302.6	302.9	301.0	301.0	301.3	301.0	300.9	300.9
-4	...	...	...	1.722	302.6	302.4	302.6	302.4	302.7	302.6	300.9	301.0	301.0	301.0	301.3	301.0	300.9	300.9
-3	...	...	...	1.738	302.6	302.4	302.6	302.4	302.8	302.6	300.9	301.0	301.0	301.0	301.3	301.0	300.9	300.9
-2	...	...	...	1.733	302.6	302.4	302.6	302.4	302.8	302.6	300.9	301.0	301.0	301.0	301.3	301.0	300.9	300.9
-1	...	...	...	1.735	302.6	302.4	302.6	302.4	302.8	302.6	300.9	301.0	301.0	301.0	301.3	301.0	300.9	300.9
0	3.771	300.2	...	1.739	302.5	302.4	302.6	302.4	302.8	302.6	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
1	3.767	300.2	...	1.730	302.6	302.4	302.6	302.4	302.8	302.6	300.9	301.0	301.0	301.0	301.3	301.0	300.8	301.0
2	3.776	300.2	...	1.746	302.5	302.4	302.6	302.4	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
3	3.774	300.2	...	1.713	302.5	302.4	302.6	302.4	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	301.0
4	3.768	300.2	...	1.742	302.6	302.4	302.6	302.4	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
5	3.784	300.3	...	1.728	302.5	302.4	302.6	302.4	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
6	3.771	300.2	...	1.736	302.5	302.4	302.6	302.4	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
7	3.762	300.3	...	1.745	302.5	302.4	302.6	302.4	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
8	3.783	300.3	...	1.734	302.5	302.4	302.6	302.4	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
9	3.776	300.3	...	1.722	302.5	302.4	302.6	302.4	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
10	3.765	300.3	...	1.745	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
11	3.778	300.3	...	1.735	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
12	3.785	300.3	...	1.736	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
13	3.769	300.3	...	1.741	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
14	3.780	300.3	...	1.735	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
15	3.787	300.3	...	1.736	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
16	3.781	300.3	...	1.735	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
17	3.772	300.3	...	1.734	302.5	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
18	3.782	300.3	...	1.739	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
19	...	...	...	1.719	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
20	...	...	...	1.748	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
21	...	...	...	1.736	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
22	...	...	...	1.727	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
23	...	...	...	1.735	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
24	...	...	...	1.726	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
25	...	...	...	1.735	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
26	...	...	...	1.735	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
31	...	...	...	1.735	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
36	...	...	...	1.746	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
41	...	...	...	1.722	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
46	...	...	...	1.732	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
51	...	...	...	1.733	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
56	...	...	...	1.727	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
61	...	...	...	1.745	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9
66	...	...	...	1.733	302.4	302.3	302.5	302.3	302.9	302.5	300.9	300.9	300.9	301.0	301.2	301.0	300.8	300.9

(Table Continues)

Table 16F — Scaling Run 308, Test Configuration 2: Two 1.52 cm Nozzles (Continued)

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107													
PRESSURANT		FILL-TANK		THERMOCOUPLES		LOCATION 1		T (DEG K)		T (DEG K)		T (DEG K)	
FOR - TOTAL	P	FOR - TOTAL	P	FOR - TOTAL	P	FOR - TOTAL	P	FOR - TOTAL	P	FOR - TOTAL	P	FOR - TOTAL	P
TIME (SEC)	P (BAR)	TIME (SEC)	P (BAR)	TIME (SEC)	P (BAR)	TIME (SEC)	P (BAR)	TIME (SEC)	P (BAR)	TIME (SEC)	P (BAR)	TIME (SEC)	P (BAR)
71	...	71	...	71	...	71	...	71	...	71	...	71	...
72	...	72	...	72	...	72	...	72	...	72	...	72	...
73	...	73	...	73	...	73	...	73	...	73	...	73	...
74	...	74	...	74	...	74	...	74	...	74	...	74	...
75	...	75	...	75	...	75	...	75	...	75	...	75	...
76	...	76	...	76	...	76	...	76	...	76	...	76	...
77	...	77	...	77	...	77	...	77	...	77	...	77	...
78	...	78	...	78	...	78	...	78	...	78	...	78	...
79	...	79	...	79	...	79	...	79	...	79	...	79	...
80	...	80	...	80	...	80	...	80	...	80	...	80	...
81	...	81	...	81	...	81	...	81	...	81	...	81	...
82	...	82	...	82	...	82	...	82	...	82	...	82	...
83	...	83	...	83	...	83	...	83	...	83	...	83	...
84	...	84	...	84	...	84	...	84	...	84	...	84	...
85	...	85	...	85	...	85	...	85	...	85	...	85	...
86	...	86	...	86	...	86	...	86	...	86	...	86	...
87	...	87	...	87	...	87	...	87	...	87	...	87	...
88	...	88	...	88	...	88	...	88	...	88	...	88	...
89	...	89	...	89	...	89	...	89	...	89	...	89	...
90	...	90	...	90	...	90	...	90	...	90	...	90	...
91	...	91	...	91	...	91	...	91	...	91	...	91	...
92	...	92	...	92	...	92	...	92	...	92	...	92	...
93	...	93	...	93	...	93	...	93	...	93	...	93	...
94	...	94	...	94	...	94	...	94	...	94	...	94	...
95	...	95	...	95	...	95	...	95	...	95	...	95	...
96	...	96	...	96	...	96	...	96	...	96	...	96	...
97	...	97	...	97	...	97	...	97	...	97	...	97	...
98	...	98	...	98	...	98	...	98	...	98	...	98	...
99	...	99	...	99	...	99	...	99	...	99	...	99	...
100	...	100	...	100	...	100	...	100	...	100	...	100	...
101	...	101	...	101	...	101	...	101	...	101	...	101	...
102	...	102	...	102	...	102	...	102	...	102	...	102	...
103	...	103	...	103	...	103	...	103	...	103	...	103	...
104	...	104	...	104	...	104	...	104	...	104	...	104	...
105	...	105	...	105	...	105	...	105	...	105	...	105	...
106	...	106	...	106	...	106	...	106	...	106	...	106	...
107	...	107	...	107	...	107	...	107	...	107	...	107	...
108	...	108	...	108	...	108	...	108	...	108	...	108	...
109	...	109	...	109	...	109	...	109	...	109	...	109	...
110	...	110	...	110	...	110	...	110	...	110	...	110	...
111	...	111	...	111	...	111	...	111	...	111	...	111	...
112	...	112	...	112	...	112	...	112	...	112	...	112	...
113	...	113	...	113	...	113	...	113	...	113	...	113	...
114	...	114	...	114	...	114	...	114	...	114	...	114	...
115	...	115	...	115	...	115	...	115	...	115	...	115	...
116	...	116	...	116	...	116	...	116	...	116	...	116	...
117	...	117	...	117	...	117	...	117	...	117	...	117	...
118	...	118	...	118	...	118	...	118	...	118	...	118	...
119	...	119	...	119	...	119	...	119	...	119	...	119	...

Table 16G — Scaling Run 309, Test Configuration 2: Two 1.52 cm Nozzles

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 309																				
PRESSURANT FILL- FOR - TOTAL, TANK			THERMOCOUPLES LOCATION 1		COORDINATES															
TIME P	T P	(SEC)(BAR)(DEG K)	(BAR)	1	2	3	4	5	6	7	8	9	10	11	12	13	I	R	THETA 2 (W) (DEG) (W)	
-5	0.00	0.00	1.045	301.5	301.0	301.2	301.3	300.6	301.4	299.9	300.0	299.7	300.2	300.0	299.6	299.8	1	0.229	00	0.152
-4	0.00	0.00	1.064	301.4	301.1	301.3	301.3	300.6	301.4	299.9	300.0	299.7	300.2	300.0	299.6	299.8	2	0.229	00	0.000
-3	0.00	0.00	1.070	301.4	301.0	301.3	301.3	300.6	301.4	299.9	300.0	299.7	300.2	300.0	299.6	299.8	3	0.076	00	0.152
-2	0.00	0.00	1.034	301.4	301.0	301.3	301.3	300.6	301.4	299.9	300.0	299.7	300.1	300.0	299.9	306.4	4	0.102	00	0.076
-1	0.00	0.00	1.034	301.5	301.0	301.2	301.3	300.6	301.3	299.8	300.0	299.7	300.2	300.0	299.6	299.8	5	0.076	00	-0.076
0	6.391	292.0	1.061	301.5	301.0	301.3	301.3	300.7	301.5	299.8	299.9	299.7	300.2	300.0	299.6	299.8	6	0.152	00	0.152
1	6.243	294.8	1.086	304.8	304.4	301.9	304.4	303.3	305.2	301.7	303.9	302.4	302.9	302.6	302.3	302.0	7	0.229	00	0.762
2	5.960	294.9	1.165	307.3	307.3	303.4	307.3	305.8	308.0	305.3	307.3	305.9	306.8	306.1	306.0	305.7	8	0.244	00	0.991
3	5.729	290.5	1.220	310.0	310.3	305.9	310.3	308.7	310.3	307.6	309.1	308.0	309.0	308.1	308.0	307.9	9	0.076	00	0.076
4	5.489	289.1	1.286	311.7	312.0	308.2	312.0	310.6	311.9	308.9	310.2	308.5	310.7	309.5	309.4	309.2	10	0.229	00	-0.076
5	5.165	288.5	1.299	312.5	312.7	309.4	312.8	311.1	312.7	309.5	310.6	310.0	311.2	310.0	309.8	309.7	11	0.152	00	0.762
6	5.165	287.5	1.333	313.1	313.5	310.7	313.5	311.9	313.1	310.3	311.1	310.7	311.8	310.7	310.5	310.5	12	0.229	00	0.914
7	4.940	286.7	1.425	313.8	313.8	311.6	314.0	312.0	313.6	310.8	311.4	311.0	312.3	310.9	310.9	310.9	13	0.229	00	0.838
8	4.755	286.2	1.433	314.0	314.1	312.2	314.2	312.3	313.8	310.9	311.5	311.1	312.6	311.3	311.2	311.3				
9	4.577	285.5	1.490	314.0	314.2	312.6	314.3	312.4	313.7	311.1	311.3	311.1	312.7	311.3	311.1	311.4				
10	4.468	284.7	1.527	313.8	314.0	312.9	314.2	312.3	313.6	310.9	311.3	311.1	312.8	311.0	311.1	311.1				
11	4.306	284.2	1.558	313.0	313.0	312.9	313.8	312.2	313.6	310.8	311.2	311.2	312.5	311.2	311.0	311.0				
12	4.147	283.8	1.610	313.7	313.7	313.1	313.8	312.0	313.4	310.7	311.0	311.0	312.6	311.2	310.9	311.0				
13	4.012	283.2	1.643	313.6	313.6	313.0	313.7	311.7	313.3	310.6	311.0	311.0	312.4	311.0	310.7	310.8				
14	3.883	282.6	1.663	313.4	313.5	313.0	313.7	311.7	313.3	310.3	310.7	310.8	312.3	310.9	310.4	310.5				
15	3.785	282.3	1.722	313.3	313.3	312.9	313.5	311.6	313.1	310.2	310.9	310.4	312.1	310.6	310.6	310.5				
16	3.666	281.9	1.727	313.1	313.3	312.9	313.4	311.5	312.9	310.2	310.7	310.4	312.2	310.5	310.5	310.8				
17	3.547	280.7	1.770	312.9	313.0	312.8	313.2	311.1	312.6	310.1	310.2	310.2	311.9	310.2	310.2	310.4				
18	3.534	280.7	1.777	312.3	312.4	312.6	312.5	311.4	312.3	309.4	309.6	309.7	311.4	309.6	309.5	309.7				
19	3.562	287.2	1.764	312.1	312.1	312.0	312.1	311.3	311.9	309.0	309.5	309.4	311.0	309.4	309.3	309.3				
20	0.00	0.00	1.767	311.6	311.6	312.0	311.6	310.9	311.5	308.9	309.2	309.2	310.7	309.2	309.0	309.2				
21	0.00	0.00	1.783	311.4	311.3	311.9	311.4	310.9	310.9	308.7	308.9	309.1	310.2	309.0	308.7	308.9				
22	0.00	0.00	1.753	311.1	311.0	311.6	311.1	310.7	310.8	308.6	308.9	309.1	310.2	308.8	308.5	308.8				
23	0.00	0.00	1.766	310.9	310.7	311.2	310.9	310.6	310.6	308.4	308.8	308.9	309.9	308.7	308.3	308.6				
24	0.00	0.00	1.771	310.9	310.6	311.1	310.9	310.5	310.5	308.1	308.7	308.7	309.5	308.4	308.1	308.2				
25	0.00	0.00	1.761	310.6	310.4	310.9	310.7	310.3	310.1	308.0	308.5	308.2	309.4	308.2	307.8	308.1				
26	0.00	0.00	1.780	310.4	310.2	310.6	310.4	310.2	309.7	307.8	308.1	308.1	309.1	308.0	307.5	307.8				
27	0.00	0.00	1.749	310.2	310.0	310.4	310.2	310.1	309.5	307.6	308.1	308.1	308.9	308.0	307.3	307.7				
28	0.00	0.00	1.733	309.7	309.0	309.4	309.6	309.2	308.9	306.8	307.3	307.2	307.8	307.1	306.4	306.8				
29	0.00	0.00	1.763	308.8	308.2	308.5	308.8	308.4	308.1	306.2	306.6	306.6	306.0	306.6	305.5	306.1				
30	0.00	0.00	1.744	308.2	307.5	307.8	308.1	307.8	307.3	305.8	305.9	306.0	306.3	306.2	304.5	305.4				
31	0.00	0.00	1.770	307.7	306.6	307.1	307.4	307.0	306.8	305.2	305.3	305.4	305.6	305.8	304.2	305.0				
32	0.00	0.00	1.761	306.8	306.1	306.4	306.6	306.6	306.1	304.7	304.7	304.4	304.5	304.6	304.8	304.4				
33	0.00	0.00	1.746	306.4	305.8	306.0	306.2	306.1	305.9	304.4	304.4	304.3	304.5	304.6	304.8	304.4				
34	0.00	0.00	1.751	306.1	305.4	305.8	305.9	305.8	305.6	304.1	304.0	304.4	304.4	304.5	304.3	304.9				
35	0.00	0.00	1.743	305.8	305.2	305.5	305.5	305.5	305.4	303.9	303.8	304.1	304.1	304.4	303.1	303.8				

(Table Continues)

Table 16G — Scaling Run 309, Test Configuration 2: Two 1.52 cm Nozzles (Continued)

S C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107														
PRESSURANT FILL- FOR - TOTAL			THERMOCOUPLES LOCATION 1			T (DEG K)			P (BAR)			T (DEG K)		
TIME (SEC)	P	T	1	2	3	4	5	6	7	8	9	10	11	12
72	305.5	304.9	305.1	305.2	305.2	305.2	303.8	303.8	303.9	303.9	304.1	303.1
77	305.3	304.6	304.8	305.1	304.9	305.1	303.5	303.5	303.7	303.7	303.9	303.0
87	304.9	304.4	304.5	304.6	304.6	304.6	303.1	303.1	303.3	303.3	303.5	302.7
97	304.5	304.2	304.3	304.4	304.4	304.4	302.9	302.9	303.0	303.0	303.1	302.5
107	304.3	303.9	304.0	304.0	304.0	304.0	302.6	302.6	302.7	302.6	302.8	302.3
117	304.0	303.7	303.9	303.8	304.0	303.9	302.4	302.4	302.5	302.4	302.6	302.2
127	303.9	303.6	303.8	303.7	303.9	303.8	302.3	302.3	302.3	302.3	302.4	302.0
137	303.8	303.5	303.6	303.5	303.8	303.8	302.1	302.1	302.2	302.2	302.3	301.9
147	303.6	303.3	303.6	303.4	303.8	303.6	302.0	302.0	302.1	302.0	302.2	301.8
157	303.5	303.3	303.6	303.3	303.5	303.5	301.8	301.8	302.0	302.0	302.1	301.9
167	303.4	303.2	303.5	303.2	303.5	303.5	301.8	301.8	302.0	302.0	302.1	301.8
177	303.4	303.1	303.3	303.1	303.3	303.3	301.7	301.7	301.8	301.8	301.9	301.7
187	303.4	303.1	303.3	303.1	303.3	303.3	301.8	301.8	301.7	301.7	301.8	301.7
197	303.3	303.1	303.4	303.1	303.4	303.4	301.8	301.8	301.7	301.7	301.8	301.7
207	303.3	303.0	303.3	303.0	303.3	303.3	301.7	301.7	301.6	301.6	301.8	301.6
217	303.3	303.0	303.3	303.0	303.3	303.3	301.7	301.7	301.8	301.8	301.9	301.8
227	303.2	303.0	303.3	303.0	303.3	303.2	301.7	301.7	301.8	301.8	301.9	301.8
237	303.1	303.0	303.2	303.0	303.2	303.2	301.6	301.6	301.7	301.7	301.8	301.7
247	303.1	303.0	303.2	303.0	303.2	303.2	301.6	301.6	301.7	301.7	301.8	301.7
257	303.1	303.0	303.2	303.0	303.2	303.2	301.6	301.6	301.7	301.7	301.8	301.7
267	303.1	303.0	303.2	303.0	303.2	303.2	301.6	301.6	301.7	301.7	301.8	301.7
277	303.1	303.0	303.2	303.0	303.2	303.2	301.6	301.6	301.7	301.7	301.8	301.7
287	303.1	303.0	303.2	303.0	303.2	303.2	301.6	301.6	301.7	301.7	301.8	301.7
297	303.1	303.0	303.2	303.0	303.2	303.2	301.6	301.6	301.7	301.7	301.8	301.7
307	303.1	303.0	303.2	303.0	303.2	303.2	301.6	301.6	301.7	301.7	301.8	301.7
317	303.0	303.0	303.2	303.0	303.2	303.2	301.6	301.6	301.7	301.7	301.8	301.7
327	303.0	303.0	303.2	303.0	303.2	303.2	301.6	301.6	301.7	301.7	301.8	301.7
337	303.0	303.0	303.2	303.0	303.2	303.2	301.6	301.6	301.7	301.7	301.8	301.7
347	303.0	303.0	303.2	303.0	303.2	303.2	301.6	301.6	301.7	301.7	301.8	301.7

Table 16H — Scaling Run 310, Test Configuration 2: Two 1.52 cm Nozzles

S C METER CHAMBER OBSTRUCTED GAS MIXING RUN 310																				
TIME P	T (SEC)	P (BAR)	FILL- PRESSURANT (BAR)	TANK LOCATION 1 (°DEC K)	THERMOCOUPLES													COORDINATES		
					1	2	3	4	5	6	7	8	9	10	11	12	13	R (M)	THETA (°C)	Z (M)
-5	0.000	1.033	302.0	301.8	301.8	301.8	301.2	302.0	300.2	300.4	300.2	300.6	300.4	300.2	300.3	1	0.229	0.0	0.152	
-4	0.000	1.058	302.0	301.8	301.8	301.8	301.9	301.2	302.0	300.2	300.4	300.2	300.8	300.4	300.2	300.3	2	0.229	0.0	0.000
-3	0.000	1.040	302.0	301.8	301.8	301.8	301.9	301.2	302.0	300.2	300.4	300.1	300.8	300.4	300.2	300.4	3	0.076	0.0	0.152
-2	0.000	1.051	302.0	301.8	301.8	301.8	301.8	301.2	301.9	300.2	300.4	300.2	300.8	300.5	300.2	300.3	4	0.102	0.0	0.076
-1	0.000	1.054	302.0	301.8	301.8	301.8	301.8	301.2	301.9	300.2	300.4	300.2	300.8	300.4	300.2	300.3	5	0.076	0.0	-0.076
0	6.393	299.2	1.059	302.5	302.1	301.8	302.0	301.8	302.5	300.3	300.4	300.2	300.8	300.4	300.2	300.3	6	0.152	0.0	0.152
1	6.184	297.0	1.100	306.2	306.2	302.9	306.1	304.8	306.6	302.9	303.2	304.0	304.5	304.3	304.0	303.7	7	0.229	0.0	0.762
2	5.922	293.0	1.172	300.7	308.9	304.4	309.1	307.3	309.1	306.6	308.6	306.8	307.8	307.0	307.4	307.2	8	0.229	0.0	0.991
3	5.689	290.8	1.219	311.4	311.8	306.8	311.8	310.0	311.5	308.7	310.1	308.7	310.2	309.1	309.2	309.0	9	0.076	0.0	-0.076
4	5.461	289.5	1.280	313.0	313.4	309.1	313.3	311.6	312.8	309.6	311.2	310.2	311.6	310.2	310.6	310.2	10	0.229	0.0	-0.076
5	5.208	288.8	1.318	313.6	314.1	310.2	314.3	312.2	313.4	310.3	311.3	310.9	312.3	310.7	310.7	310.6	11	0.152	0.0	0.762
6	5.104	288.0	1.365	314.2	314.5	311.4	314.6	312.8	313.9	310.9	311.8	311.3	312.9	311.4	311.3	311.2	12	0.229	0.0	0.914
7	4.921	287.2	1.394	314.6	315.0	312.3	315.2	313.1	314.1	311.1	311.9	311.6	312.4	311.7	311.6	311.7	13	0.229	0.0	0.838
8	4.730	286.7	1.436	314.7	314.7	312.8	315.0	313.1	314.3	311.6	311.9	311.8	312.5	311.9	311.6	311.7				
9	4.541	286.1	1.510	314.7	314.9	313.2	315.1	312.8	314.4	311.5	311.7	311.6	312.3	311.6	311.6	311.6				
10	4.447	285.4	1.521	314.7	314.8	313.5	315.1	312.8	314.4	311.5	311.7	311.6	312.3	311.6	311.6	311.6				
11	4.288	284.6	1.567	314.5	314.7	313.8	314.8	313.3	314.3	311.4	312.0	311.6	312.3	311.6	311.6	311.6				
12	4.127	284.2	1.624	314.5	314.6	313.8	314.6	312.7	314.2	311.6	311.6	311.7	312.3	312.0	311.8	311.9				
13	3.997	283.7	1.643	314.4	314.5	313.8	314.6	312.7	314.1	311.4	311.6	311.6	312.3	311.8	311.3	311.7				
14	3.859	283.1	1.672	314.2	314.2	313.7	314.5	312.5	313.8	311.4	311.3	311.6	312.3	311.7	311.3	311.5				
15	3.731	282.8	1.719	314.2	314.0	313.6	314.2	312.6	313.8	311.4	311.4	311.4	312.0	311.5	311.3	311.6				
16	3.618	282.3	1.730	314.0	311.8	313.5	314.1	312.2	313.7	311.0	311.1	311.1	312.0	311.3	311.0	311.2				
17	3.502	281.5	1.772	313.8	313.7	313.4	313.8	311.8	313.4	311.0	311.1	311.1	312.4	311.3	311.1	311.3				
18	3.382	281.0	1.778	313.3	313.6	313.3	313.6	312.3	313.2	310.5	310.8	311.0	312.2	310.9	310.6	310.9				
19	3.262	280.0	1.790	312.9	312.7	313.0	312.9	312.0	312.5	310.2	310.4	310.8	311.7	310.6	310.2	310.4				
20	3.142	279.0	1.771	312.3	312.2	312.6	312.5	311.7	312.0	310.1	310.3	310.5	311.3	310.3	309.9	310.3				
21	3.022	278.0	1.771	312.3	312.0	312.4	312.3	311.6	311.6	309.8	309.8	310.0	310.9	310.0	309.5	309.9				
22	2.902	277.0	1.778	312.0	311.7	312.2	312.1	311.6	311.6	309.6	309.5	309.8	310.6	309.9	309.4	309.7				
23	2.782	276.0	1.774	311.7	311.4	311.9	311.8	311.4	311.2	309.4	309.5	309.7	310.3	309.7	309.7	309.5				
24	2.662	275.0	1.756	311.4	311.2	311.6	311.6	311.2	310.9	309.0	309.3	309.5	309.9	309.4	308.8	309.1				
25	2.542	274.0	1.769	311.2	310.9	311.4	311.4	311.1	310.7	308.8	309.2	309.4	309.6	309.3	308.6	308.9				
26	2.422	273.0	1.767	311.0	310.8	311.2	311.1	310.9	310.4	308.5	308.9	309.3	309.4	309.1	308.3	308.7				
27	2.302	272.0	1.769	310.1	309.6	310.1	310.1	310.2	309.5	307.6	308.4	308.5	308.4	308.2	307.3	307.7				
28	2.182	271.0	1.754	309.5	308.8	309.3	309.3	309.4	308.8	306.9	307.6	307.7	307.6	307.6	306.4	306.8				
29	2.062	270.0	1.762	308.9	308.3	308.5	308.8	308.7	308.3	306.2	306.7	307.0	307.0	307.0	305.4	306.4				
30	1.942	269.0	1.762	308.2	307.5	308.1	308.2	308.0	307.9	305.8	306.2	306.3	306.4	306.4	304.8	305.6				
31	1.822	268.0	1.761	307.9	306.9	307.5	307.8	307.5	307.3	305.2	305.7	305.8	305.8	305.9	304.5	305.1				
32	1.702	267.0	1.740	307.5	306.6	307.0	307.3	306.9	306.9	305.1	305.4	305.3	305.3	305.3	304.4	304.9				
33	1.582	266.0	1.739	307.0	306.2	306.6	306.7	306.7	306.6	304.9	305.1	305.0	305.1	305.3	304.0	304.6				
34	1.462	265.0	1.736	306.6	306.0	306.2	306.5	306.4	306.3	304.6	304.8	304.8	304.9	305.1	304.0	304.5				

(Table Continues)

Table 16H — Scaling Run 310, Test Configuration 2: Two 1.52 cm Nozzles (Continued)

5 C METER CHAMBER OBSTRUCTED GAS MIXING RUN 107															
PRESSURANT		FILL-		THERMOCOUPLES		LOCATION 1		T (DEG K)		T (DEG K)		T (DEG K)		T (DEG K)	
TIME	P	FOU - TOTAL	P	FOU - TOTAL	P	FOU - TOTAL	P	FOU - TOTAL	P	FOU - TOTAL	P	FOU - TOTAL	P	FOU - TOTAL	P
(SEC)	(BAR)	(BAR)	(SEC)	(BAR)	(BAR)	(SEC)	(BAR)	(BAR)	(SEC)	(BAR)	(BAR)	(SEC)	(BAR)	(BAR)	(SEC)
71	1.736	1.736	1	306.2	306.2	305.9	306.2	306.2	305.9	304.4	304.5	304.6	304.8	304.9	303.8
76	1.744	1.744	2	305.9	305.9	305.9	305.9	305.9	305.9	304.7	304.4	304.5	304.5	304.7	302.8
86	1.777	1.777	3	305.4	305.4	305.7	305.7	305.7	305.3	303.8	304.0	304.0	304.1	304.2	303.5
96	1.762	1.762	4	305.2	305.2	305.2	305.2	305.2	305.2	303.8	303.8	303.8	303.8	304.0	302.8
106	1.762	1.762	5	304.8	304.8	304.8	304.8	304.8	304.8	303.5	303.5	303.5	303.5	304.0	303.6
116	1.772	1.772	6	304.6	304.6	305.1	304.9	304.9	304.8	302.1	302.3	302.3	302.3	303.8	303.1
126	1.759	1.759	7	304.5	304.5	305.0	304.5	304.5	304.5	301.1	302.3	302.3	302.3	303.5	303.4
136	1.763	1.763	8	304.4	304.4	304.9	304.5	304.5	304.5	302.9	302.9	302.9	302.9	303.3	302.9
146	1.762	1.762	9	304.2	304.2	304.9	304.4	304.4	304.4	302.8	302.9	302.9	302.9	303.0	302.7
156	1.756	1.756	10	304.1	304.1	304.8	304.2	304.2	304.2	302.7	302.7	302.9	303.1	302.8	302.5
166	1.759	1.759	11	304.0	304.0	304.5	304.2	304.2	304.2	302.6	302.6	302.8	303.1	302.8	302.4
176	1.760	1.760	12	303.9	303.9	304.4	304.1	304.1	304.1	302.5	302.5	302.7	303.4	302.7	302.4
186	1.769	1.769	13	303.8	303.8	304.2	304.0	304.0	304.0	302.5	302.5	302.6	303.6	302.6	302.4
196	1.776	1.776	14	303.8	303.8	304.4	304.1	304.1	304.1	302.5	302.6	302.6	303.6	302.6	302.4
206	1.757	1.757	15	304.0	304.0	304.3	304.0	304.0	304.0	302.4	302.4	302.6	303.6	302.6	302.4
216	1.750	1.750	16	303.8	303.8	304.2	304.0	304.0	304.0	302.4	302.4	302.5	302.7	302.5	302.4
226	1.751	1.751	17	303.7	303.7	304.8	304.0	304.0	304.0	302.4	302.4	302.5	302.7	302.5	302.4
236	1.744	1.744	18	303.6	303.6	304.0	304.0	304.0	304.0	302.4	302.4	302.5	302.6	302.5	302.3
246	1.740	1.740	19	303.6	303.6	303.9	303.6	303.6	303.6	302.3	302.3	302.4	302.6	302.5	302.3
256	1.735	1.735	20	303.6	303.6	304.2	303.9	303.9	303.9	302.3	302.3	302.5	302.6	302.4	302.2
266	1.733	1.733	21	303.5	303.5	304.2	303.9	303.9	303.9	302.4	302.3	302.5	302.6	302.4	302.2
276	1.744	1.744	22	303.7	303.7	304.3	303.8	303.8	303.8	302.4	302.3	302.4	302.5	302.4	302.2
286	1.731	1.731	23	303.6	303.6	304.3	303.8	303.8	303.8	302.4	302.3	302.4	302.5	302.4	302.2
296	1.738	1.738	24	303.6	303.6	304.3	303.8	303.8	303.8	302.3	302.2	302.4	302.6	302.4	302.2
306	1.731	1.731	25	303.6	303.6	304.3	303.8	303.8	303.8	302.3	302.2	302.4	302.6	302.4	302.2
316	1.731	1.731	26	303.6	303.6	304.3	303.8	303.8	303.8	302.3	302.2	302.4	302.6	302.4	302.2
326	1.731	1.731	27	303.6	303.6	304.3	303.8	303.8	303.8	302.3	302.2	302.4	302.6	302.4	302.2
336	1.742	1.742	28	303.5	303.5	304.4	303.8	303.8	303.8	302.2	302.2	302.4	302.6	302.3	302.2
346	1.746	1.746	29	303.5	303.5	304.4	303.8	303.8	303.8	302.2	302.2	302.4	302.6	302.3	302.2

Table 161 — Scaling Run 311, Test Configuration 2: Two 1.52 cm Nozzles

TIME (SEC)	P (BAR)	FILL- PRESSURE (BAR)	CHAMBER PRESSURE (BAR)	OBSTRUCTED FIRE - TOTAL (BAR)	THERMOCOUPLES LOCATION 1 (°C)	T (°C)	1	2	3	4	5	6	7	8	9	10	11	12	13	COORDINATES (M)	R (M)	THETA (°)	Z (M)
-3	0.000	0.000	0.000	0.000	0.000	0.000	303.0	302.0	302.7	302.9	302.2	302.9	301.2	301.3	301.0	301.0	301.5	301.2	301.3	1	0.229	00	0.152
-2	0.000	0.000	0.000	0.000	0.000	0.000	303.0	302.0	302.7	302.9	302.2	302.9	301.2	301.3	301.0	301.0	301.5	301.2	301.3	2	0.229	00	0.000
-1	0.000	0.000	0.000	0.000	0.000	0.000	303.0	302.0	302.7	302.9	302.2	302.9	301.2	301.3	301.0	301.0	301.5	301.2	301.3	3	0.076	00	0.152
0	0.000	0.000	0.000	0.000	0.000	0.000	302.9	302.0	302.7	302.9	302.2	302.9	301.2	301.3	301.0	301.0	301.5	301.2	301.3	4	0.102	00	0.076
1	0.000	0.000	0.000	0.000	0.000	0.000	303.0	302.0	302.7	302.9	302.2	302.9	301.2	301.3	301.0	301.0	301.5	301.2	301.3	5	0.076	00	-0.076
2	0.000	0.000	0.000	0.000	0.000	0.000	302.9	302.0	302.7	302.9	302.2	302.9	301.2	301.3	301.0	301.0	301.5	301.2	301.3	6	0.152	00	0.152
3	0.000	0.000	0.000	0.000	0.000	0.000	305.5	305.2	303.1	305.2	304.7	305.9	302.4	304.8	303.8	304.3	303.9	303.5	303.1	7	0.229	00	0.762
4	0.000	0.000	0.000	0.000	0.000	0.000	308.4	308.4	304.5	308.4	307.3	308.9	306.0	308.8	307.1	308.0	307.5	307.5	307.1	8	0.229	00	0.991
5	0.000	0.000	0.000	0.000	0.000	0.000	311.4	311.9	307.3	311.7	310.3	311.6	309.3	310.9	309.5	310.6	310.0	309.8	309.7	9	0.076	00	0.076
6	0.000	0.000	0.000	0.000	0.000	0.000	313.4	313.0	309.4	313.9	312.3	313.5	311.0	312.0	311.2	312.3	311.3	311.3	311.2	10	0.229	00	-0.076
7	0.000	0.000	0.000	0.000	0.000	0.000	314.5	314.8	310.7	314.9	313.1	314.3	311.7	312.6	312.0	313.5	312.2	312.0	311.9	11	0.152	00	0.762
8	0.000	0.000	0.000	0.000	0.000	0.000	315.0	315.5	312.2	315.7	314.0	315.0	312.4	313.1	312.4	314.0	312.7	312.4	312.3	12	0.229	00	0.914
9	0.000	0.000	0.000	0.000	0.000	0.000	315.3	315.6	313.3	315.8	314.2	315.4	312.5	313.0	312.8	314.4	312.9	312.7	312.7	13	0.229	00	0.638
10	0.000	0.000	0.000	0.000	0.000	0.000	315.6	316.0	313.9	316.0	314.4	315.6	312.9	313.2	312.9	314.7	313.1	313.0	313.0				
11	0.000	0.000	0.000	0.000	0.000	0.000	315.9	316.0	314.4	316.2	314.5	315.7	312.6	313.3	313.0	314.8	313.1	313.0	312.9				
12	0.000	0.000	0.000	0.000	0.000	0.000	315.7	315.9	314.9	316.0	314.0	315.5	312.6	313.3	312.8	314.7	312.9	313.2	313.1				
13	0.000	0.000	0.000	0.000	0.000	0.000	315.8	315.6	315.0	315.9	313.9	315.6	312.8	313.2	313.0	314.7	313.2	313.1	313.2				
14	0.000	0.000	0.000	0.000	0.000	0.000	315.7	315.6	315.0	315.8	314.1	315.3	312.6	312.8	312.9	314.5	313.1	312.8	312.9				
15	0.000	0.000	0.000	0.000	0.000	0.000	315.5	315.5	315.0	315.6	314.1	315.2	312.4	312.6	312.5	314.4	312.8	312.5	312.8				
16	0.000	0.000	0.000	0.000	0.000	0.000	315.2	315.2	314.9	315.3	313.7	315.0	312.4	312.6	312.3	314.1	312.7	312.4	312.5				
17	0.000	0.000	0.000	0.000	0.000	0.000	315.0	314.9	314.7	315.4	314.0	314.9	312.2	312.4	312.3	314.1	312.6	312.3	312.4				
18	0.000	0.000	0.000	0.000	0.000	0.000	314.9	314.8	314.6	315.0	313.6	314.7	312.0	312.1	312.2	314.0	312.4	312.1	312.3				
19	0.000	0.000	0.000	0.000	0.000	0.000	314.3	314.2	314.4	314.4	313.4	313.8	311.6	311.9	312.0	313.6	312.2	311.7	312.0				
20	0.000	0.000	0.000	0.000	0.000	0.000	313.8	313.7	314.0	313.8	313.2	313.4	311.2	311.3	311.6	312.6	311.6	311.0	311.4				
21	0.000	0.000	0.000	0.000	0.000	0.000	313.6	313.4	313.8	313.1	313.2	311.0	311.1	311.3	311.6	312.6	311.6	311.0	311.4				
22	0.000	0.000	0.000	0.000	0.000	0.000	313.3	313.2	313.7	313.3	312.9	312.8	310.9	310.8	311.0	312.2	311.0	310.3	310.9				
23	0.000	0.000	0.000	0.000	0.000	0.000	312.9	312.7	313.2	313.1	312.5	312.5	310.6	310.6	310.7	311.8	310.8	310.0	310.6				
24	0.000	0.000	0.000	0.000	0.000	0.000	312.8	312.5	312.9	312.4	312.3	312.3	310.2	310.4	310.6	311.6	310.6	309.8	310.3				
25	0.000	0.000	0.000	0.000	0.000	0.000	312.6	312.4	312.8	312.3	312.1	310.0	310.2	310.6	311.4	310.3	309.5	310.0					
26	0.000	0.000	0.000	0.000	0.000	0.000	312.5	312.3	312.5	312.3	311.9	309.8	310.1	310.4	311.2	310.2	309.2	309.9					
27	0.000	0.000	0.000	0.000	0.000	0.000	312.3	312.0	312.3	312.1	311.8	309.5	309.8	310.3	311.0	310.0	308.9	309.6					
28	0.000	0.000	0.000	0.000	0.000	0.000	311.7	311.0	311.5	311.4	310.9	308.8	308.8	309.5	309.8	309.2	307.8	308.5					
29	0.000	0.000	0.000	0.000	0.000	0.000	311.0	309.5	310.7	310.9	310.7	310.2	308.2	308.3	308.8	308.7	308.7	307.5	308.1				
30	0.000	0.000	0.000	0.000	0.000	0.000	310.1	308.9	309.8	309.9	309.5	307.9	307.9	308.0	308.1	307.8	308.3	308.9	307.8				
31	0.000	0.000	0.000	0.000	0.000	0.000	309.1	308.1	309.0	308.8	309.2	308.5	307.2	307.5	307.5	307.1	307.8	306.3	307.3				
32	0.000	0.000	0.000	0.000	0.000	0.000	308.7	308.0	308.4	308.5	308.7	308.1	306.8	306.7	306.9	306.8	307.2	305.7	306.6				
33	0.000	0.000	0.000	0.000	0.000	0.000	308.4	307.8	308.1	308.3	308.0	306.4	306.4	306.4	306.4	306.4	306.4	305.3	306.2				
34	0.000	0.000	0.000	0.000	0.000	0.000	308.1	307.5	307.7	308.1	307.8	306.1	306.1	306.1	306.1	306.1	306.1	305.1	305.8				
35	0.000	0.000	0.000	0.000	0.000	0.000	307.8	307.0	307.3	307.6	307.1	306.8	306.8	306.8	306.8	306.8	306.8	305.7	306.5				
36	0.000	0.000	0.000	0.000	0.000	0.000	307.5	306.7	307.0	307.2	306.7	306.4	306.4	306.4	306.4	306.4	306.4	305.3	306.1				
37	0.000	0.000	0.000	0.000	0.000	0.000	307.1	306.6	306.8	306.9	307.1	306.7	306.7	306.7	306.7	306.7	306.7	305.9	306.8				
38	0.000	0.000	0.000	0.000	0.000	0.000	306.7	306.2	306.6	306.6	306.6	306.6	306.6	306.6	306.6	306.6	306.6	305.5	306.4				
39	0.000	0.000	0.000	0.000	0.000	0.000	306.7	306.2	306.6	306.6	306.6	306.6	306.6	306.6	306.6	306.6	306.6	305.5	306.4				

Table 17A — Inferred Pressurant Distribution, Sealing Run 300: Test Configuration 2

INFERRED PRESSURANT DISTRIBUTION — 5 C METER CHAMBER OBSTRUCTED GAS #1												
TIME TEMPERATURE	BETA BETA/TSTAR PRESSURANT FRACTION											
(SEC) MEAN AIR PRESSURANT	2	3	4	5	6	7	8	9	10	11	12	13
MEAN 1 - 1	2	3	4	5	6	7	8	9	10	11	12	13
0.0 27.4 27.4 32.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.0 28.5 28.5 24.2	-106.0	-8206										
2.0 32.2 32.5 27.8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3.0 34.7 35.4 27.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4.0 36.7 38.0 27.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5.0 38.0 39.8 28.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6.0 38.6 40.9 28.4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7.0 39.0 41.9 28.8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8.0 39.3 42.4 29.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9.0 39.4 42.9 29.4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10.0 39.5 43.1 29.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11.0 39.4 43.3 29.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12.0 39.3 43.6 30.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13.0 39.3 43.6 30.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14.0 39.2 43.8 30.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15.0 39.0 43.7 30.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16.0 38.9 43.0 30.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17.0 38.9 43.7 30.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18.0 38.6 42.3 31.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19.0 37.4 41.7 30.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20.0 36.9 41.0 30.4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21.0 35.9 40.9 31.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22.0 33.9 37.0 31.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23.0 36.4 40.3 30.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24.0 39.9 44.0 32.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25.0 36.4 40.3 30.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26.0 33.9 37.0 29.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27.0 36.5 40.5 30.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28.0 35.5 39.1 29.8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29.0 35.3 42.0 31.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30.0 35.3 38.9 29.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31.0 33.7 36.8 29.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32.0 35.8 39.6 30.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
33.0 35.3 38.9 29.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34.0 36.2 40.0 30.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35.0 34.6 37.9 29.4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36.0 35.5 39.1 29.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37.0 35.0 38.4 29.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
38.0 33.6 36.5 28.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39.0 35.7 39.3 29.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.0 35.0 38.4 29.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41.0 31.1 33.1 28.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42.0 36.9 40.9 30.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43.0 35.0 38.4 29.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
44.0 32.7 35.3 28.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
45.0 35.8 39.6 30.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46.0 32.2 41.4 30.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
47.0 32.7 35.3 28.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48.0 35.1 38.6 29.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
49.0 37.2 41.3 30.8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50.0 32.7 35.2 28.6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

(Table Continues)

Table 17A — Inferred Pressurant Distribution, Scaling Run 300: Test Configuration 2 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI																			
TIME TEMP. DEG C)		BETA BETA/TSTAR PRESSURANT FRACTION																	
(SEC)	MEAN AIR PRESSURANT	MEAN I = 1																	
VALVE FULLY CLOSED																			
31.0	33.4	36.2	29.0	-40.1	-3129	387	332	402	360	346	249	443	415	374	41	360	512	429	
32.0	36.4	40.1	30.4	-120.1	-1.0008	387	361	413	382	372	289	423	382	372	372	39	361	464	425
33.0	33.4	36.2	29.0	120.1	1.0008	387	352	429	379	379	235	421	379	379	365	49	355	476	435
34.0	31.3	33.3	28.1	137.3	1.0728	387	332	417	371	390	218	466	371	371	371	40	352	504	426
35.0	35.3	38.8	29.9	-220.0	-1.1782	387	359	426	370	382	281	426	370	353	370	40	359	460	439
36.0	37.8	42.0	31.1	-86.2	-6735	387	364	419	382	382	300	419	373	373	373	41	364	436	419
37.0	33.4	36.2	29.0	172.2	1.3431	387	360	429	388	374	263	443	360	368	360	41	360	437	429
38.0	30.8	32.6	27.9	181.4	1.4159	387	354	451	375	375	182	461	332	418	354	44	332	525	418
39.0	34.4	37.6	29.5	-228.1	-1.7817	387	360	422	372	385	274	422	360	337	372	42	360	447	434
40.0	33.8	35.9	30.2	-58.2	-4549	387	367	421	378	388	231	432	356	359	367	41	356	443	421
41.0	33.2	35.9	28.9	118.6	9267	387	365	436	379	393	265	436	351	353	365	42	351	450	422
42.0	32.7	35.2	28.7	30.5	-2384	387	369	445	384	384	262	445	354	40	354	41	339	461	415
43.0	34.8	38.0	29.7	-106.8	-8341	387	376	423	388	376	232	435	364	388	364	41	352	447	412
44.0	36.9	40.8	30.7	-80.1	-6235	387	381	421	381	371	302	431	371	351	361	41	352	441	411
45.0	34.3	37.3	29.4	103.3	8071	387	376	439	389	376	276	439	363	401	351	41	338	452	414
46.0	32.9	35.5	28.8	73.2	5720	387	363	437	392	378	243	452	363	407	348	42	333	467	422
47.0	32.7	35.2	28.7	10.5	-8021	387	353	444	398	383	261	459	353	358	353	42	332	455	414
48.0	35.3	38.7	29.9	-128.1	-1.0009	387	366	423	400	388	286	434	366	388	366	42	343	474	411
49.0	37.4	41.5	31.0	-75.3	-5886	387	373	421	393	383	307	421	364	402	364	41	345	421	421
50.0	33.2	35.9	28.9	170.6	1.3343	387	377	434	391	391	276	434	348	406	348	42	319	449	434
51.0	31.1	33.0	28.1	142.4	1.1126	387	362	442	382	402	222	442	322	422	362	42	302	482	442
52.0	32.2	34.5	28.5	-80.1	-6235	387	376	443	393	410	243	427	326	427	360	42	326	466	410
53.0	35.1	38.5	29.9	-153.4	-1.1903	387	371	417	394	394	289	417	359	406	371	40	347	441	417
54.0	37.2	41.2	31.0	-76.9	-6004	387	370	409	390	390	302	409	360	419	370	40	360	439	409
55.0	33.0	35.6	28.9	174.7	1.3647	387	362	421	391	391	257	421	367	436	362	40	347	466	421
56.0	30.1	31.5	27.8	231.8	1.8111	387	354	461	407	381	194	461	301	461	354	40	301	541	407
57.0	34.8	38.0	29.8	-303.5	-2.3712	387	369	418	393	381	295	418	357	418	369	39	357	455	406
58.0	36.9	40.5	30.8	-74.2	-5794	387	372	413	382	382	310	413	361	413	372	39	361	444	413
59.0	36.9	40.7	30.9	-6.0	-0468	387	378	409	388	388	317	409	358	419	368	38	358	439	409
60.0	32.9	35.4	28.9	173.3	1.3541	387	383	429	383	383	275	414	352	432	392	33	337	476	414
61.0	29.9	31.2	27.7	242.2	1.8918	387	363	477	391	363	191	420	305	448	363	42	305	563	420
62.0	35.7	39.1	30.3	-346.7	-2.7080	387	374	419	396	385	306	408	362	366	374	40	351	442	408
63.0	34.3	37.3	29.5	59.6	-4635	387	367	419	393	380	289	419	367	406	367	40	341	457	419
64.0	31.5	33.3	28.3	165.4	1.2917	387	368	444	387	387	253	425	348	406	368	40	329	483	425
65.0	35.3	38.6	30.1	-287.3	-1.6193	387	371	418	395	383	313	406	360	355	371	40	360	442	406
66.0	34.3	37.3	29.5	45.8	-3575	387	366	418	392	392	301	418	353	352	366	41	353	442	418
67.0	32.3	34.7	28.6	105.2	-8217	387	375	425	392	392	276	425	359	352	359	42	342	456	408
68.0	29.9	31.3	27.7	213.7	1.6694	387	361	405	389	417	194	473	305	389	361	41	333	500	417
69.0	31.8	33.9	28.5	-180.8	-1.4120	387	378	433	397	415	269	433	324	397	360	41	360	451	397
70.0	35.0	38.1	30.0	-169.6	-1.3249	387	377	414	390	402	304	414	365	402	365	40	365	426	406
71.0	33.9	36.7	29.4	48.0	-3733	387	375	416	389	402	307	416	362	389	362	41	362	436	402
72.0	32.2	34.4	28.6	100.1	-7821	387	380	414	397	414	277	432	346	357	363	41	363	432	397
73.0	30.2	31.8	27.8	164.0	1.2811	387	375	431	400	426	223	431	324	400	350	45	350	451	375
74.0	32.5	34.9	28.6	-185.2	-1.4466	387	392	454	392	408	277	424	343	402	375	42	359	424	392
75.0	35.5	38.0	30.2	-145.2	-1.1344	387	397	420	385	397	303	408	362	367	373	40	362	408	408
76.0	37.1	40.6	31.1	-57.1	-4456	387	392	413	382	403	310	403	361	403	382	40	372	403	402
77.0	32.0	34.1	28.6	229.4	1.7916	387	394	430	394	412	248	430	357	394	357	43	357	412	412
78.0	33.4	36.0	29.3	-85.4	-6674	387	390	435	390	405	276	420	360	375	375	43	360	405	405
79.0	34.8	37.8	30.0	-67.4	-5268	387	397	422	397	397	292	410	358	357	371	42	358	397	410
80.0	32.3	34.6	28.8	128.1	1.0010	387	401	436	401	419	263	419	349	401	367	43	349	401	384

Table 17B — Inferred Pressurant Distribution, Scaling Run 301: Test Configuration 2

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MI													
TIME (SEC)	BETA DELTA/1STAIR PRESSURANT FRACTION												
(SEC) MEAN AIR PRESSURANT	MEAN I = 1												
	2	3	4	5	6	7	8	9	10	11	12	13	
COMMENCE VALVE OPENING													
0.0 20.0 20.0 13.5	-3	0.0000											
1.0 29.1 29.0 23.5	773.7	-15.2734											
VALVE FULLY OPEN													
2.0 32.0 32.2 27.5	62.8	3.7372											
3.0 35.1 35.7 27.1	11.7	4.556											
4.0 37.2 38.7 27.1	19.6	1.2476											
5.0 38.4 40.3 27.5	10.4	2.237											
6.0 39.1 41.6 27.9	15.6	5.263											
7.0 39.6 42.6 28.3	16.8	6.594											
8.0 39.8 43.0 28.5	16.0	2.565											
9.0 39.8 43.5 29.1	18.2	8.666											
10.0 39.9 43.9 29.3	17.1	3.020											
11.0 39.9 43.9 29.4	17.4	1.016											
12.0 39.8 44.3 29.9	18.0	8.174											
13.0 39.6 44.2 30.1	19.6	3.620											
14.0 39.6 44.3 30.3	18.2	3.680											
15.0 39.5 44.4 30.5	18.4	4.085											
COMMENCE VALVE CLOSURE													
16.0 39.4 44.4 30.6	19.5	3.267											
17.0 39.1 44.1 30.9	-26.5	5.175											
VALVE FULLY CLOSED													
18.0 38.8 43.7 30.8	-3.9	0.765											
19.0 40.1 45.4 31.4	13.8	-2.651											
20.0 39.2 44.2 31.0	-9.7	1.893											
21.0 42.4 48.4 32.5	31.7	-6.204											
22.0 38.7 43.5 30.8	-37.8	7.780											
23.0 35.0 38.5 29.2	-53.7	1.0452											
24.0 38.8 43.7 30.5	55.7	-1.0883											
25.0 41.8 47.7 32.3	31.0	-6.068											
26.0 34.8 38.2 29.3	-87.4	1.7083											
27.0 38.5 43.1 30.9	54.8	-1.0746											
28.0 40.4 45.7 31.8	21.6	-4.228											
29.0 37.8 42.2 30.6	-30.4	5.949											
30.0 38.0 42.4 30.6	2.3	-0.446											
31.0 37.1 41.3 30.2	-11.8	2.313											
32.0 36.4 40.3 29.9	-10.3	2.019											
33.0 40.4 45.7 31.8	49.8	-9.739											
34.0 37.3 41.5 30.3	-37.4	7.313											
35.0 37.4 41.7 30.4	2.4	-0.472											
36.0 36.4 40.3 29.9	-15.2	2.568											
37.0 38.0 42.4 30.6	22.1	-4.324											
38.0 37.8 42.2 30.5	-2.3	0.446											
39.0 37.8 42.2 30.5	0.0	0.000											
40.0 38.5 43.1 30.9	8.9	-1.738											
41.0 36.9 41.0 30.1	-60.9	4.088											
42.0 38.0 42.4 30.6	14.3	-2.802											
43.0 40.1 45.2 31.6	24.5	-4.797											
44.0 36.2 40.1 29.9	-48.9	9.859											
45.0 35.9 39.6 29.7	-5.6	1.058											
46.0 39.2 44.1 31.2	45.0	-8.790											
47.0 35.3 38.9 29.5	-53.6	1.0468											
48.0 33.0 35.7 28.6	-47.4	9.275											
49.0 38.5 43.2 30.8	90.0	-1.7588											
50.0 36.7 40.8 30.0	-23.4	4.884											

(Table Continues)

Table 17B — Inferred Pressurant Distribution, Sealing Run 301: Test Configuration 2 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI																			
TIME TEMP: DEG C)		BETA BETA/10STAR PRESSURANT FRACTION																	
(SEC)	MEAN AIR PRESSURANT	1	2	3	4	5	6	7	8	9	10	11	12	13					
VALVE FULLY CLOSED																			
51.0	35.3	38.9	29.4	-22.5	4392	379	308	403	351	329	287	361	424	382	372	39	382	487	445
52.0	40.1	45.3	31.6	62.7	-1.2264	379	327	386	364	342	313	371	407	386	378	38	386	459	422
53.0	36.6	40.6	29.9	-43.7	8541	379	318	384	365	328	299	365	412	393	373	39	384	478	431
54.0	35.3	38.9	29.4	-19.9	3886	379	313	397	365	323	292	365	418	397	376	39	376	481	428
55.0	39.4	44.4	31.2	35.5	-1.0841	379	335	394	371	340	317	371	401	394	371	39	378	452	416
56.0	37.4	41.8	30.3	-23.8	4658	379	323	393	367	332	315	376	402	393	376	39	376	463	419
57.0	32.7	35.2	28.5	-86.2	1.6859	379	278	412	367	308	263	367	412	442	367	39	367	516	427
58.0	37.1	41.2	30.3	81.9	-1.6910	379	317	399	372	335	308	372	399	408	381	39	363	454	427
59.0	38.5	43.1	30.9	18.4	-3601	379	328	393	377	344	320	377	393	402	369	38	369	451	416
60.0	35.7	39.4	29.7	-39.7	7761	379	321	393	373	342	311	383	393	393	373	39	362	465	424
61.0	34.4	37.7	29.1	-22.4	4371	379	311	393	370	346	300	382	393	393	373	39	358	463	428
62.0	38.7	43.4	31.0	63.2	-1.2361	379	332	389	373	357	324	381	389	405	365	38	373	437	413
63.0	39.9	45.0	31.6	14.0	-2233	379	338	390	375	367	330	390	382	397	367	39	367	427	405
64.0	35.5	39.1	29.6	-58.1	1.1356	379	328	401	370	359	307	401	380	401	359	40	359	443	412
65.0	34.4	37.7	29.1	-19.4	3794	379	319	413	366	366	308	401	378	390	355	41	366	446	401
66.0	38.3	42.9	30.8	59.2	-1.1570	379	327	397	380	372	320	397	372	388	364	40	364	413	397
67.0	36.7	40.8	30.1	-21.3	4164	379	349	406	377	377	321	406	377	387	359	40	359	406	396
68.0	34.3	37.4	29.1	-42.1	8228	379	327	418	371	383	299	406	383	394	347	41	347	416	394
69.0	34.6	37.9	29.2	7.0	-1369	379	337	426	368	380	299	414	368	391	357	40	345	426	391
70.0	39.0	43.8	31.2	63.9	-1.2490	379	335	404	365	373	333	404	373	389	365	39	357	404	396
71.0	35.3	38.9	29.5	-51.6	1.0089	379	327	410	367	378	314	410	378	378	357	41	346	410	395
72.0	33.9	37.0	28.9	-27.3	5328	379	359	432	369	382	295	419	369	382	344	41	344	432	369
73.0	36.4	40.3	29.9	48.2	-8634	379	385	413	384	384	317	403	384	374	355	40	345	413	384
74.0	38.2	42.9	30.8	26.5	-5185	379	365	407	382	382	324	407	382	374	357	39	349	407	390
75.0	35.2	38.6	29.4	-46.5	-9084	379	339	413	381	381	315	413	381	370	348	41	348	413	391
76.0	34.3	37.4	29.1	-16.8	3286	379	326	412	376	388	304	412	388	364	364	40	340	412	388
77.0	38.7	43.4	31.0	66.6	-1.2010	379	322	396	380	380	324	404	380	372	364	39	364	404	388
78.0	37.6	42.0	30.5	-13.3	-2607	379	320	396	379	379	318	405	379	370	370	39	353	414	396
79.0	35.2	38.7	29.4	-37.7	7362	379	346	396	396	386	310	407	375	364	364	39	353	416	396
80.0	35.7	39.4	29.6	9.1	-1784	379	359	399	389	379	307	399	369	379	369	39	358	410	399
81.0	38.5	43.1	30.9	39.7	-7761	379	359	393	385	377	328	393	377	385	369	39	361	402	392
82.0	36.0	39.8	29.8	-34.1	6662	379	321	391	381	381	322	391	381	381	361	40	361	411	391
83.0	33.7	36.7	28.8	-42.6	8325	379	344	402	377	390	301	402	390	390	352	40	352	415	390
84.0	34.1	37.2	29.0	7.6	-1491	379	377	401	377	389	304	401	389	389	365	38	353	413	377
85.0	38.7	43.4	31.0	69.9	-1.3623	379	323	389	381	389	324	389	381	389	365	38	365	405	389
86.0	37.3	41.5	30.3	-18.1	3537	379	385	386	386	386	315	395	378	386	360	39	369	404	395
87.0	33.2	36.0	28.7	-71.7	1.4011	379	361	402	388	388	292	402	375	402	361	38	361	416	386
88.0	34.4	37.7	29.2	27.1	-5297	379	382	402	382	382	299	405	382	393	358	39	358	417	370
89.0	37.3	41.5	30.4	45.9	-8981	379	327	396	377	377	323	396	382	387	359	38	359	405	396
90.0	39.6	44.5	31.5	28.2	-5905	379	325	391	375	383	329	391	383	383	360	38	360	406	396
91.0	36.0	39.8	29.8	-46.1	5002	379	323	394	384	384	313	404	384	394	353	38	353	414	396
92.0	33.9	36.9	29.0	-38.8	7588	379	300	405	392	380	292	405	392	380	342	39	355	417	392
93.0	35.3	38.9	29.5	27.3	-5328	379	378	400	389	378	301	400	389	378	357	38	357	410	400
94.0	35.0	38.4	29.4	-6.3	1224	379	322	406	384	384	295	406	384	384	351	38	351	406	395
95.0	32.2	34.5	28.4	-64.9	1.2683	379	325	402	385	402	271	418	385	385	353	38	353	418	402
96.0	32.5	35.0	28.5	10.4	-2038	379	331	397	381	381	271	412	381	381	350	39	350	412	397
97.0	36.0	39.8	29.9	72.0	-1.4069	379	376	386	386	386	305	396	386	386	366	39	366	396	396
98.0	36.9	41.0	30.3	13.3	-2602	379	322	391	391	391	316	391	382	382	363	39	363	400	391
99.0	37.3	41.4	30.4	5.0	-8976	379	321	389	389	389	316	398	380	380	361	38	371	396	396
100.0	39.2	44.0	31.3	24.2	-4738	379	321	387	387	387	324	395	379	387	363	38	371	395	395

[illegible]

(Table Continues)

Table 17C — Inferred Pressurant Distribution, Scaling Run 302: Test Configuration 2 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME TEMP-DEC C)		BETA BETA/TSTAR PRESSURANT FRACTION										
(SEC)	MEAN	AIR	PRESSURANT	MEAN I = 1								
VALVE FULLY CLOSED												
51.0	35.3	38.4	30.2	10.7	1194	382	323	444	347	359	262	408
52.0	33.0	35.4	29.1	84.4	9437	382	314	458	330	346	218	426
53.0	33.5	36.1	29.4	-22.8	-2354	382	329	448	339	374	240	404
54.0	33.1	43.5	32.1	-132.4	-17070	382	353	424	362	371	292	397
55.0	33.7	36.3	29.5	146.1	1.6363	382	343	461	343	373	240	402
56.0	32.5	34.6	29.0	55.1	6170	382	328	485	345	363	204	398
57.0	35.8	39.1	30.5	-123.4	-1.3822	382	381	444	363	363	258	398
58.0	34.8	37.7	30.0	32.8	3671	352	344	447	383	370	267	422
59.0	31.1	32.7	28.5	171.3	1.9186	382	333	479	358	358	164	454
60.0	35.1	38.1	30.3	-181.0	-2.0272	382	361	425	361	361	259	425
61.0	36.7	40.1	31.1	-45.3	-5022	382	366	432	377	366	289	410
62.0	34.2	36.9	29.8	74.6	9361	382	373	458	373	373	260	415
63.0	32.3	34.4	29.0	83.6	9365	382	368	479	386	368	238	442
64.0	35.8	39.0	30.6	-131.8	-1.4765	382	376	436	376	376	293	424
65.0	35.3	38.3	30.3	15.8	1720	382	383	445	383	370	295	420
66.0	31.1	32.6	28.6	185.6	2.0787	382	384	451	384	359	207	459
67.0	33.0	35.2	29.5	-109.8	-1.2297	382	391	461	374	391	269	426
68.0	36.3	39.5	31.2	-113.5	-1.2712	382	385	444	385	385	313	420
69.0	33.7	36.1	29.8	85.0	9527	382	382	461	366	382	287	429
70.0	32.3	34.3	29.1	64.1	7178	382	394	472	394	374	257	452
71.0	35.3	38.2	30.6	-117.2	-1.3132	382	384	437	384	384	292	423
72.0	37.6	41.1	31.8	-61.3	-6862	382	380	423	391	380	305	413
73.0	31.8	33.4	29.1	197.1	2.2080	382	373	489	419	396	210	466
74.0	31.8	33.4	29.1	0.0	0.0000	382	360	476	407	384	221	453
75.0	36.0	38.9	31.3	-163.0	-1.8237	382	357	435	383	383	291	422
76.0	34.8	37.3	30.6	37.8	4231	382	362	437	377	377	273	437
77.0	33.2	35.3	29.8	60.2	6744	382	365	438	383	383	238	438
78.0	32.5	34.4	29.4	33.2	3723	382	371	452	411	411	230	452
79.0	35.1	37.8	30.8	-103.4	-1.1587	382	372	435	400	386	258	415
80.0	35.6	38.4	31.1	-16.2	-1.813	382	389	430	403	389	281	416
81.0	33.7	36.0	30.0	65.7	7360	382	400	450	417	417	265	434
82.0	31.8	33.4	29.1	93.1	1.0430	382	391	459	414	436	230	436
83.0	32.7	34.6	29.5	-47.8	-5380	382	394	433	394	413	237	433
84.0	35.6	38.4	31.1	-110.4	-1.2387	382	397	432	397	411	289	425
85.0	39.5	43.3	33.3	-91.2	-1.0211	382	377	417	377	387	307	397
86.0	32.5	34.2	29.6	199.0	2.2290	382	368	456	368	390	216	412
87.0	30.6	31.7	28.7	126.8	1.4202	382	397	408	364	397	128	431
88.0	34.2	36.5	30.6	-192.4	-2.1548	382	397	448	381	397	246	397
89.0	35.5	38.0	31.3	-40.7	-4562	382	392	436	377	392	274	392
90.0	35.6	38.3	31.4	-5.3	-0590	382	391	434	376	391	289	391
91.0	32.8	34.7	29.8	102.4	1.1473	382	388	450	368	388	245	409
92.0	31.1	32.4	28.9	102.1	1.1435	382	393	479	364	393	191	422
93.0	33.2	35.1	30.0	-117.1	-1.3122	382	383	482	364	403	247	403
94.0	35.5	38.0	31.3	-82.0	-9190	382	390	450	375	390	271	390
95.0	35.6	38.2	31.4	-5.3	-0590	382	384	458	369	384	282	384
96.0	32.7	34.5	29.7	110.4	1.2367	382	379	463	379	421	250	421
97.0	33.4	35.4	28.9	94.0	1.0532	382	375	491	404	433	201	433
98.0	33.4	35.4	30.1	-124.2	-1.3911	382	405	482	405	424	272	424
99.0	35.1	37.6	31.1	-64.0	-7170	382	382	444	382	397	273	397
100.0	35.5	38.0	31.3	-10.9	-1234	382	390	435	375	405	270	405

Table 17D — Inferred Pressurant Distribution, Scaling Run 306: Test Configuration 2

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OSTRUCTED GAS N ₂																													
TIME TEMP(SEC C)		BETA BETA/ISTAR PRESSURANT FRACTION																											
(SEC)	MEAN AIR PRESSURANT	MEAN I = 1	2	3	4	5	6	7	8	9	10	11	12	13															
COMMENCE VALVE OPENING																													
0.0	24.4	24.4	-25.3	-1.0	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1.0	26.1	26.2	22.3	199.3	7.6112	0.039	-0.005	0.096	0.398	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	0.996	
VALVE FULLY OPEN																													
2.0	29.4	29.7	20.6	953.4	-2.6655	0.377	-0.091	-0.091	0.356	-1.02	0.18	-1.23	1.71	-0.47	0.84	0.5	0.73	0.62	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
3.0	31.0	32.7	22.1	24.1	1.4007	0.091	-0.06	-0.13	0.60	-0.13	1.19	-0.03	1.56	0.06	1.47	0.5	1.28	0.91	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19
4.0	33.0	35.2	22.0	8.2	1.2420	1.118	0.29	0.13	3.67	-0.11	1.10	0.21	1.92	0.93	1.66	0.9	1.66	1.42	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
5.0	34.9	37.2	24.1	18.5	1.1516	1.71	0.83	0.68	3.51	0.60	1.37	0.91	2.59	1.67	2.13	1.2	2.21	2.06	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
6.0	35.6	38.1	24.4	8.9	1.218	1.82	1.35	1.66	3.26	0.99	1.72	1.35	2.58	1.87	2.09	1.3	2.23	2.14	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69
7.0	36.1	39.2	25.3	17.4	0.8953	2.23	1.66	1.93	3.25	1.30	2.09	1.81	2.96	2.38	2.53	1.7	2.74	2.65	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97
8.0	36.4	39.9	26.0	16.0	0.8957	2.53	1.96	1.75	3.10	1.60	2.54	2.11	3.18	3.04	2.75	2.0	2.89	2.89	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97
9.0	36.4	40.0	26.1	10.3	2.523	2.63	2.12	1.90	2.98	1.76	2.62	2.12	3.27	3.13	2.84	2.1	3.20	3.13	3.05	3.05	3.05	3.05	3.05	3.05	3.05	3.05	3.05	3.05	3.05
10.0	36.3	40.2	26.4	18.1	4.485	2.81	2.34	2.20	2.99	2.05	2.85	2.41	3.38	3.28	3.07	2.3	3.36	3.31	3.14	3.14	3.14	3.14	3.14	3.14	3.14	3.14	3.14	3.14	3.14
11.0	36.3	40.5	26.8	17.6	5.614	3.04	2.51	2.36	3.02	2.21	3.17	2.58	3.75	3.46	3.46	2.5	3.68	3.63	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38
12.0	36.2	40.6	27.1	18.5	4.923	3.20	2.67	2.52	3.04	2.52	3.26	2.82	3.93	3.63	3.56	2.7	3.71	3.63	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
13.0	36.2	40.7	27.3	18.2	3.866	3.35	2.76	2.61	3.21	2.54	3.43	2.99	3.96	3.68	3.68	2.9	3.96	3.88	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56
14.0	36.1	40.6	27.3	20.7	1.862	3.41	2.79	2.52	3.17	2.56	3.62	3.02	4.08	4.00	3.85	2.8	4.00	3.85	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56
15.0	35.8	40.4	27.5	19.0	4.930	3.57	2.89	2.55	3.14	2.76	3.68	3.14	4.30	4.22	3.95	3.0	4.14	4.07	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77	3.77
COMMENCE VALVE CLOSURE																													
16.0	35.7	40.5	27.7	18.6	6.042	3.77	3.31	3.19	3.34	3.95	3.81	3.34	4.67	4.51	4.05	3.3	4.28	4.28	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20
17.0	35.7	40.5	28.0	5.8	2.362	3.85	3.31	3.29	3.45	3.13	3.85	3.33	4.49	4.37	4.09	2.4	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
VALVE FULLY CLOSED																													
18.0	35.4	40.1	27.8	1.8	0.795	3.85	3.38	3.36	3.36	3.33	3.69	3.60	4.42	4.50	4.02	3.5	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26
19.0	42.2	49.0	31.4	-28.9	-1.1801	3.85	3.31	3.31	3.40	3.45	3.63	3.68	4.37	4.25	4.02	3.6	4.14	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23
20.0	37.5	42.9	20.9	18.7	7.665	3.85	3.31	3.31	3.40	3.45	3.63	3.68	4.37	4.25	4.02	3.6	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23
21.0	39.4	45.4	29.9	-8.4	-3.435	3.85	3.61	3.74	3.26	3.55	3.55	3.74	4.26	4.33	3.81	3.6	4.07	4.07	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13
22.0	37.3	42.6	28.8	9.2	3.771	3.85	3.47	3.83	3.32	3.59	3.39	3.83	4.41	4.19	3.90	3.9	4.12	4.19	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12
23.0	38.4	44.0	29.4	-4.8	-1.959	3.85	3.42	3.77	3.29	3.42	3.36	3.77	4.38	4.17	3.97	3.9	4.11	4.31	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17
24.0	34.8	39.4	27.6	17.5	7.188	3.85	3.40	3.74	3.23	3.40	3.32	3.74	4.31	4.24	3.82	3.9	4.16	4.33	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24
25.0	39.1	44.9	29.2	-20.4	-8.284	3.85	3.31	3.72	3.30	3.44	3.38	3.72	4.37	4.37	3.84	3.9	4.04	4.33	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17	4.17
26.0	36.2	41.3	28.3	12.9	5.254	3.85	3.37	3.75	3.29	3.29	3.29	3.51	4.37	4.22	3.83	3.9	4.06	4.32	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22
27.0	36.2	41.3	28.3	0.0	0.0000	3.85	3.36	3.82	3.36	3.28	3.28	3.74	4.36	4.13	3.82	4.0	4.05	4.31	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28
28.0	40.5	46.7	30.5	-18.4	-7.941	3.85	3.48	3.73	3.42	3.36	3.42	3.73	4.22	4.10	3.85	3.9	4.04	4.47	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28
29.0	37.0	42.2	28.6	14.9	6.130	3.85	3.40	3.63	3.40	3.25	3.33	3.84	4.29	4.14	3.92	3.9	4.06	4.58	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29
30.0	34.3	38.7	27.3	14.3	5.854	3.85	3.42	3.89	3.24	3.16	3.16	3.95	4.30	4.13	3.86	3.9	4.04	4.74	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
31.0	37.3	42.6	28.8	-15.9	-6.532	3.85	3.37	3.71	3.49	3.35	3.13	4.00	4.29	4.00	3.85	4.0	3.93	4.51	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32
32.0	38.5	44.2	29.4	-5.5	-2.271	3.85	3.60	3.67	3.47	3.40	3.20	3.88	4.21	4.01	3.94	4.0	3.88	4.88	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28
33.0	34.8	39.4	27.6	18.3	7.493	3.85	3.39	3.73	3.39	3.31	3.06	3.90	4.24	4.15	3.99	4.0	3.90	4.66	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24
34.0	32.9	36.8	26.6	12.4	5.987	3.85	3.18	3.77	3.47	3.18	3.08	3.86	4.16	4.16	4.06	4.0	3.96	4.84	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26
35.0	35.2	39.9	27.7	-14.4	-5.982	3.85	3.32	3.81	3.48	3.23	3.13	3.81	4.22	4.06	3.89	4.1	3.96	4.84	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26
36.0	39.8	45.8	30.1	-21.2	-8.717	3.85	3.45	3.83	3.57	3.38	3.19	3.83	4.15	4.02	3.89	4.0	3.77	4.66	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21
37.0	33.8	38.0	27.1	29.4	1.2046	3.85	3.30	3.85	3.39	3.21	2.93	3.94	4.22	4.12	3.85	4.2	3.76	4.92	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31
38.0	37.0	42.1	28.7	-17.5	-7.193	3.85	3.34	3.85	3.36	3.26	3.04	3.85	4.23	4.08	3.85	4.1	3.78	4.75	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
39.0	36.6	41.7	28.5	1.7	0.749	3.85	3.35	3.94	3.36	3.23	3.03	3.86	4.24	4.01	3.86	4.1	3.78	4.77	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24	4.24
40.0	37.5	42.8	28.9	-4.2	-1.739	3.85	3.38	3.93	3.37	3.23	3.00	3.86	4.22	4.01	3.86	4.2	3.79	4.63	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22
41.0	36.4	41.5	28.4	5.1	-2.096	3.85	3.33	4.06	3.61	3.38	3.00	3.92	4.13	4															

Table 17D — Inferred Pressurant Distribution, Scaling Run 306: Test Configuration 2 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME TEMP/DEG C (SEC)	BETA BETA/1STAR PRESSURANT FRACTION											
	MEAN AIR PRESSURANT											
VALVE FULLY CLOSED												
31.0	32.2	33.0	26.4	21.4	1.2303	305	327	412	359	337	273	391
32.0	36.0	41.0	20.7	-27.5	-1.1392	305	346	400	369	361	308	384
33.0	32.6	36.3	26.6	25.0	1.0203	305	333	406	364	354	271	355
34.0	36.2	41.1	20.4	-22.4	-0.9200	305	342	408	373	350	255	389
35.0	32.6	37.7	27.1	15.2	0.6244	305	337	403	365	356	280	394
36.0	34.5	38.8	27.5	-5.5	-0.2270	305	342	404	377	360	289	386
37.0	35.2	39.0	27.9	-4.1	-0.1679	305	347	397	363	363	296	380
38.0	36.8	41.0	20.7	-8.3	-0.3466	305	354	400	370	370	309	377
39.0	36.1	40.9	20.4	3.6	1.0359	305	358	398	366	366	310	382
40.0	34.3	38.6	27.5	9.9	0.4061	305	350	395	359	359	297	386
41.0	36.1	40.9	20.4	9.9	-0.4061	305	359	398	374	359	303	382
42.0	31.7	35.1	26.2	20.2	1.1561	305	355	400	366	343	264	400
43.0	35.7	40.4	20.2	-26.4	-1.0836	305	353	402	369	353	304	394
44.0	34.0	38.1	27.3	10.2	0.4197	305	347	402	365	356	291	393
45.0	38.2	43.6	29.5	-22.0	-0.9014	305	350	393	372	350	322	386
46.0	34.0	38.1	27.3	22.0	0.9014	305	353	390	371	362	297	399
47.0	36.6	41.6	20.7	-14.7	-0.6042	305	355	386	370	362	308	393
48.0	34.1	38.4	27.4	13.6	0.5594	305	355	382	364	359	306	391
49.0	35.5	40.2	20.1	-8.2	-0.3388	305	357	382	365	357	307	390
50.0	33.0	37.9	27.2	10.4	0.4569	305	363	381	363	353	306	391
51.0	34.7	39.0	27.7	-5.4	-0.2230	305	350	386	368	359	307	386
52.0	34.0	38.1	27.3	4.3	1.1768	305	361	388	361	361	296	379
53.0	34.8	39.3	27.0	-5.3	-0.2191	305	350	393	367	350	297	384
54.0	38.2	43.6	29.5	-16.8	-0.6878	305	356	388	366	366	310	381
55.0	33.6	37.7	27.2	24.2	0.9914	305	350	405	350	350	282	396
56.0	35.4	40.0	20.0	-10.6	-0.4343	305	350	400	359	366	295	391
57.0	34.3	38.6	27.5	-6.0	-0.2800	305	350	394	358	367	295	394
58.0	32.9	36.7	26.9	29.5	1.2097	305	357	397	357	367	276	397
59.0	36.4	41.3	20.6	-20.8	-0.8338	305	367	390	367	367	304	382
60.0	32.6	36.2	26.7	23.3	0.9555	305	357	399	357	367	273	388
61.0	37.0	42.0	20.9	-25.8	-1.0582	305	371	386	355	371	302	386
62.0	32.4	36.0	26.6	27.0	1.1055	305	359	402	349	370	274	381
63.0	34.0	38.1	27.4	-11.0	-0.4494	305	360	389	351	370	283	379
64.0	34.5	38.8	27.7	-3.3	-0.1320	305	360	386	369	369	288	378
65.0	35.2	39.7	20.0	-4.1	-0.1679	305	365	391	365	374	288	374
66.0	35.2	39.7	20.0	0.0	0.0000	305	363	389	363	372	302	372
67.0	31.5	34.8	26.2	25.1	1.0282	305	351	397	362	362	257	374
68.0	34.5	38.7	27.7	-21.1	-0.8662	305	367	394	367	367	283	376
69.0	36.6	41.5	20.0	-11.5	-0.4730	305	366	397	366	366	295	381
70.0	32.7	36.4	26.0	22.9	0.9352	305	360	399	358	368	293	389
71.0	37.3	42.4	29.2	-26.2	-1.0733	305	369	391	369	376	293	384
72.0	32.2	35.7	26.6	29.9	1.2275	305	359	403	359	370	260	381
73.0	36.6	41.5	20.0	-26.7	-1.0953	305	365	389	365	381	286	389
74.0	34.3	38.5	27.6	12.6	0.5134	305	361	398	370	370	278	379
75.0	34.3	38.5	27.6	0.0	0.0000	305	360	395	367	386	275	395
76.0	37.0	41.9	29.0	-14.3	-0.5854	305	368	391	368	376	291	391
77.0	32.7	36.4	26.9	24.5	1.0072	305	358	390	369	379	264	390
78.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
79.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
80.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
81.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
82.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
83.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
84.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
85.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
86.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
87.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
88.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
89.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
90.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
91.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
92.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
93.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
94.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
95.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
96.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
97.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
98.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
99.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389
100.0	34.3	38.5	27.7	-10.5	-0.4322	305	371	389	361	380	278	389

(Table Continues)

Table 17E — Inferred Pressurant Distribution, Scaling Run 307: Test Configuration 2 (Continued)

INFERRED PRESSURANT DISTRIBUTION - S C METER CHAMBER OBSTRUCTED GAS MIXI																	
TIME TEMP (SEC) MEAN AIR PRESSURANT		BETA BETA/TSTAR PRESSURANT FRACTION															
		MEAN I = 1															
VALVE FULLY CLOSED		1	2	3	4	5	6	7	8	9	10	11	12	13			
31.0	36.3	37.9	33.6	-25.1	-8467	375	260	337	154	268	062	474	337	612	428	634	431
32.0	32.8	34.0	30.8	30.4	1.0269	375	242	304	055	211	-007	521	304	708	428	428	770
33.0	28.8	29.4	27.8	62.6	2.1146	375	234	234	-211	943	-466	679	234	124	428	424	532
34.0	33.5	34.8	31.4	-68.4	-2.3123	375	288	318	108	198	-042	498	318	717	438	408	737
35.0	31.8	32.8	30.1	19.6	6.6323	375	289	289	071	143	-111	543	289	798	434	39	796
36.0	33.0	34.2	31.0	-14.3	-4.8335	375	266	298	108	203	-081	519	298	740	456	740	482
37.0	34.9	31.8	29.4	26.4	8.9044	375	262	303	015	180	-190	549	262	837	467	38	837
38.0	34.6	35.9	32.3	-40.7	-1.3746	375	317	317	154	236	-009	480	317	643	426	426	480
39.0	33.0	34.2	31.0	15.1	5.092	375	320	320	099	225	-058	477	320	698	414	47	698
40.0	33.7	35.0	31.6	-7.1	-2.399	375	312	352	107	253	-040	439	312	665	430	45	665
41.0	30.6	31.4	29.1	38.4	1.2972	375	272	359	-033	185	-207	489	272	837	446	53	837
42.0	31.6	32.6	29.9	-15.5	-5.2280	375	278	352	033	203	-096	465	278	764	427	53	764
43.0	32.6	33.8	30.7	-12.8	-4.324	375	264	356	099	231	-008	429	264	693	429	52	693
44.0	31.2	32.2	29.7	17.6	5.936	375	237	433	041	190	-077	511	237	746	433	55	746
45.0	35.8	37.3	33.2	-45.1	-1.5286	375	282	331	144	243	094	440	282	613	415	48	613
46.0	33.0	34.2	31.0	24.8	8.8387	375	286	380	096	254	033	507	286	665	412	50	665
47.0	32.3	34.6	31.3	-3.6	-1.229	375	303	394	089	242	028	486	303	787	394	51	787
48.0	28.1	28.5	27.5	83.2	2.8099	375	094	490	-500	005	-797	787	094	104	381	391	78
49.0	33.0	33.9	31.4	-80.6	-2.7246	375	280	396	085	241	-119	591	280	747	357	51	747
50.0	30.4	31.1	29.2	34.5	1.1649	375	257	367	-075	201	-295	643	257	974	367	58	974
51.0	31.6	32.4	30.2	-18.4	-6.207	375	297	344	-025	251	-210	574	297	897	344	57	897
52.0	31.2	32.0	30.0	4.8	1.639	375	301	349	-037	253	-230	543	301	929	349	59	929
53.0	33.9	34.9	32.1	-29.0	-1.0083	375	312	384	061	276	-083	491	312	743	348	52	743
54.0	32.8	33.8	31.2	18.6	5.938	375	289	379	020	259	-099	538	289	817	339	49	817
55.0	31.4	32.2	30.1	17.1	5.765	375	303	350	-074	209	-213	538	303	915	337	58	915
56.0	32.6	33.6	31.1	-15.1	-5.118	375	332	332	007	210	-115	535	332	210	819	372	57
57.0	29.5	30.1	28.6	46.4	1.5684	375	279	279	-250	081	-448	609	279	147	138	411	67
58.0	34.4	35.5	32.5	-61.5	-2.0777	375	315	339	076	213	-061	486	315	897	477	63	897
59.0	30.7	31.4	29.5	41.8	1.4116	375	319	319	-102	109	-259	529	319	214	897	477	63
60.0	31.8	32.6	30.4	-15.0	-5.032	375	331	306	-058	124	-194	487	306	260	851	442	62
61.0	32.3	33.2	30.8	-6.5	-2.194	375	300	303	-041	129	-126	471	300	812	428	59	812
62.0	29.5	30.1	28.6	42.8	1.4445	375	268	335	-196	069	-395	467	268	202	1065	534	73
63.0	33.2	34.1	31.6	-31.5	-1.7389	375	307	346	-004	190	-082	462	307	773	462	57	773
64.0	30.6	31.2	29.4	33.4	1.1298	375	262	371	-118	099	-282	534	262	208	970	480	58
65.0	33.7	34.7	32.0	-38.4	-1.2972	375	307	344	012	233	-099	435	307	270	750	492	56
66.0	29.5	30.1	28.6	36.0	1.8923	375	239	375	-238	103	-443	580	239	103	125	512	64
67.0	35.4	36.6	33.5	-68.6	-2.3166	375	289	332	042	235	-022	459	289	716	459	52	716
68.0	30.4	31.0	29.3	34.8	1.8495	375	277	335	-188	103	-304	510	277	975	568	62	975
69.0	31.6	32.4	30.3	-18.4	-6.207	375	271	319	-117	174	-214	514	271	222	950	514	56
70.0	29.3	29.9	28.5	38.2	1.2901	375	221	233	-352	078	-495	579	221	149	1224	579	65
71.0	31.8	32.6	30.5	-40.3	-1.3623	375	342	295	-086	152	-181	533	342	200	914	485	58
72.0	33.7	34.7	32.1	-21.3	-7.200	375	340	301	-008	185	-083	454	340	263	803	494	53
73.0	31.4	32.2	30.2	25.9	8.7328	375	318	318	-081	118	-181	497	318	917	517	567	56
74.0	31.9	32.7	30.6	-6.9	-2.330	375	311	311	-062	171	-156	497	311	918	518	54	918
75.0	33.0	33.9	31.5	-12.1	-4.088	375	315	315	-017	190	-100	481	315	854	522	52	854
76.0	27.6	27.8	27.3	94.8	3.2036	375	198	-032	-1.876	-932	337	890	-932	964	1350	135	120
77.0	35.1	35.7	34.0	-105.4	-3.5606	375	366	250	-201	137	-258	475	250	193	982	588	64
78.0	30.2	30.6	29.5	35.0	1.8572	375	250	148	-667	-056	-769	556	250	466	1473	760	76
79.0	33.3	33.9	32.4	-40.7	-1.3765	375	339	272	-335	069	-335	474	272	137	1081	609	67
80.0	32.3	32.8	31.5	11.5	3.877	375	242	242	-361	016	-437	544	242	167	1147	619	69

Table 17F — Inferred Pressurant Distribution, Scaling Run 309: Test Configuration 2

INFERRED PRESSURANT DISTRIBUTION - 3 C METER CHAMBER OBSTRUCTED GAS M1												
TIME (SEC)		BETA RATIO/TOTAL PRESSURANT FRACTION										
(SEC)		MEAN 1 2 3 4 5 6 7 8 9 10 11 12 13										
COMENCE VALVE OPENING												
0.0	27.3	27.3	28.6	4	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.0	30.0	30.1	23.4	-143.5	-2.0334	0.014	-0.07	-0.72	0.000	0.000	0.000	0.000
VALVE FULLY OPEN												
2.0	33.1	33.6	27.2	30.0	2.0381	0.072	0.073	0.015	0.046	1.07	-0.32	124
3.0	33.5	36.5	27.4	33.0	-5202	0.107	-0.07	-0.01	-0.93	0.21	131	0.43
4.0	37.1	38.7	27.8	17.4	8295	0.148	0.11	0.48	0.05	0.66	140	0.94
5.0	37.7	39.5	28.0	3	0300	0.135	0.15	0.54	0.49	0.63	150	0.89
6.0	38.4	40.8	28.3	16.9	6497	0.187	0.19	0.67	0.30	1.03	184	1.51
7.0	38.9	41.8	28.9	17.9	9040	0.227	0.20	1.01	0.31	1.61	249	1.87
8.0	39.1	42.3	29.2	15.8	2947	0.241	0.20	1.54	0.37	1.62	261	2.08
9.0	39.2	42.6	29.4	18.0	4498	0.260	0.23	1.70	0.39	1.77	276	2.35
10.0	39.1	42.8	29.6	19.0	4709	0.278	0.20	1.96	0.38	1.96	295	2.57
11.0	39.0	42.9	29.8	19.1	3892	0.282	0.28	2.19	0.28	2.35	311	2.65
12.0	39.0	43.1	30.1	18.7	6173	0.315	0.28	2.44	0.28	2.52	344	2.98
13.0	38.8	43.1	30.2	19.6	4063	0.329	0.24	2.55	0.310	2.63	372	3.10
14.0	38.7	42.9	30.3	21.4	2731	0.338	0.34	2.56	0.304	2.56	367	3.35
15.0	38.6	43.1	30.6	19.0	6670	0.361	0.38	2.80	0.328	2.88	391	3.36
COMENCE VALVE CLOSURE												
16.0	38.5	43.0	30.6	21.8	6665	0.353	0.32	2.86	0.326	2.94	398	3.50
17.0	38.2	42.7	30.9	39.7	5705	0.379	0.30	2.99	0.325	2.99	426	3.67
VALVE FULLY CLOSED												
18.0	37.7	42.0	30.8	16.4	2307	0.382	0.30	3.07	0.298	3.34	360	3.51
19.0	35.5	39.1	29.6	42.5	6104	0.392	0.39	2.96	0.285	3.17	338	3.59
20.0	36.0	39.0	29.9	-10.8	1555	0.402	0.39	3.10	0.288	3.38	349	3.69
21.0	38.8	43.4	31.3	-18.2	6927	0.408	0.37	3.34	0.292	3.32	334	4.00
22.0	33.5	36.5	28.8	182.9	14780	0.424	0.36	3.24	0.259	3.37	311	4.02
23.0	33.8	39.5	29.9	-33.5	7694	0.438	0.34	3.46	0.304	3.66	315	3.98
24.0	36.7	40.6	30.3	-17.0	5129	0.442	0.40	3.40	0.301	3.31	311	3.89
25.0	36.9	38.3	29.5	35.7	5129	0.454	0.34	3.30	0.285	3.19	296	4.09
26.0	38.3	42.7	31.1	-42.1	8921	0.462	0.33	3.37	0.311	3.37	303	4.16
27.0	32.8	35.5	28.6	114.2	14404	0.482	0.30	3.16	0.272	3.16	243	4.47
28.0	35.6	39.2	29.9	-70.0	10064	0.482	0.46	3.46	0.303	3.35	292	4.22
29.0	35.5	38.9	29.6	3.7	5529	0.492	0.42	3.42	0.321	3.10	288	4.08
30.0	33.7	36.6	29.0	91.7	5989	0.492	0.39	3.32	0.306	2.93	280	4.10
31.0	37.4	41.5	30.8	-77.3	11113	0.502	0.32	3.41	0.332	3.33	303	3.97
32.0	33.5	36.4	28.9	81.9	11766	0.502	0.36	3.43	0.303	3.23	283	4.10
33.0	34.9	38.2	29.6	-35.0	5032	0.502	0.38	3.49	0.326	3.21	302	4.30
34.0	32.8	35.5	28.6	55.3	7948	0.502	0.37	3.23	0.308	2.98	264	4.39
35.0	34.8	38.0	29.5	-31.4	7280	0.502	0.40	3.53	0.320	3.66	283	4.24
36.0	30.9	32.8	27.9	140.6	17326	0.512	0.31	3.32	0.271	2.91	209	4.34
37.0	35.3	38.7	29.8	-130.0	10801	0.512	0.35	3.54	0.339	3.09	286	4.11
38.0	35.5	38.9	29.9	-3.8	5540	0.512	0.30	3.62	0.340	3.39	284	4.07
39.0	31.1	33.0	28.0	137.0	18251	0.512	0.37	3.57	0.297	2.77	216	4.38
40.0	34.8	37.9	29.7	-13.3	16282	0.512	0.43	3.55	0.330	3.30	269	4.16
41.0	36.0	39.5	30.4	-26.3	17884	0.512	0.30	3.62	0.329	3.29	274	4.06
42.0	32.0	34.2	28.4	104.6	15035	0.512	0.35	3.50	0.315	2.80	228	4.20
43.0	36.2	39.7	30.5	-107.8	15486	0.512	0.33	3.56	0.345	3.13	291	4.11
44.0	37.4	41.2	31.2	-32.5	3226	0.512	0.39	3.58	0.339	3.19	299	3.98
45.0	32.3	34.6	28.7	116.7	16765	0.512	0.34	3.55	0.321	2.94	254	4.39
46.0	34.6	37.6	29.8	-64.2	9222	0.512	0.30	3.64	0.355	3.29	318	4.18
47.0	36.5	40.0	30.0	-40.5	5821	0.512	0.32	3.69	0.371	3.33	320	3.94
48.0	32.5	34.8	28.8	97.0	13942	0.512	0.38	3.74	0.350	3.07	290	4.10
49.0	30.7	32.4	28.0	70.3	10103	0.512	0.34	3.55	0.325	2.91	241	4.41
50.0	32.5	34.8	28.8	-70.3	10103	0.512	0.34	3.77	0.344	3.27	220	4.44

377 244 444 394 410 360 41 344 504 427

(Table Continues)

Table 17F — Inferred Pressurant Distribution, Scaling Run 309: Test Configuration 2 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME		TEMP. (SEC. C)		BETA BETA/TSTAR PRESSURANT FRACTION								
(SEC)	MEAN	AIR	PRESSURANT	MEAN I = 1								
VALVE FULLY CLOSED												
51.0	36.9	40.5	31.1	-103.0	-1.4795	302	333	385	353	342	299	417
52.0	34.9	38.0	30.0	38.9	5.5885	302	339	384	359	347	271	434
53.0	29.9	31.1	27.9	172.5	2.4792	302	329	392	397	269	139	487
54.0	32.0	35.0	29.4	-127.2	-1.8285	302	336	392	330	320	230	446
55.0	35.5	38.3	30.9	-66.5	-0.9335	302	334	381	334	334	271	435
56.0	34.1	36.5	30.1	32.6	4.6799	302	327	382	351	351	258	429
57.0	32.3	34.3	29.1	51.6	7.7409	302	332	372	333	333	237	430
58.0	29.7	30.8	27.9	122.8	1.7632	302	325	369	335	301	166	471
59.0	32.3	34.3	29.2	-122.8	-1.7632	302	364	384	344	364	246	423
60.0	35.5	38.2	31.0	-82.0	-1.1922	302	362	390	348	362	280	417
61.0	34.2	36.7	30.2	28.2	4.047	302	370	386	339	355	277	401
62.0	33.2	35.4	29.6	20.4	4.082	302	363	398	346	346	259	398
63.0	29.9	31.0	28.0	136.3	1.9593	302	341	374	308	308	175	408
64.0	33.2	35.3	29.7	-136.3	-1.9593	302	379	361	343	343	254	415
65.0	36.0	38.0	31.4	-66.7	-0.982	302	375	388	348	361	294	429
66.0	32.0	34.9	29.6	76.9	1.1044	302	379	379	342	360	266	436
67.0	31.0	33.5	29.0	36.3	5.218	302	369	391	347	369	237	434
68.0	34.6	37.1	30.6	-82.5	-1.1834	302	377	393	347	377	285	424
69.0	36.3	39.2	31.6	-37.2	-0.7348	302	371	397	371	371	305	411
70.0	32.7	34.6	29.5	88.6	1.2729	302	381	419	361	381	264	439
71.0	29.7	30.7	28.0	132.0	1.9166	302	399	429	363	399	182	471
72.0	31.3	32.8	28.0	-85.8	-1.2333	302	382	407	382	382	232	432
73.0	35.0	38.5	31.5	-126.6	-1.8185	302	376	390	350	376	304	404
74.0	36.5	39.4	31.9	-13.7	-1.1971	302	372	399	359	372	293	399
75.0	34.1	36.3	30.4	52.2	7.651	302	377	411	394	377	253	411
76.0	31.4	33.4	28.9	83.5	1.2002	302	367	416	391	367	271	416
77.0	31.1	32.6	28.7	15.3	2.198	302	382	424	408	356	253	408
78.0	34.6	37.0	30.7	-109.6	-1.5751	302	374	405	405	358	310	389
79.0	36.0	38.7	31.6	-30.4	-0.732	302	382	396	382	396	312	396
80.0	32.5	34.4	29.5	87.6	1.2581	302	381	401	401	360	278	401
81.0	32.7	34.6	29.6	-5.8	-0.027	302	370	396	410	370	270	410
82.0	34.2	36.5	30.5	-44.4	-0.6284	302	364	398	398	364	258	414
83.0	29.9	30.9	28.2	159.6	2.2941	302	330	405	405	368	218	443
84.0	33.7	35.7	30.5	-148.7	-2.1364	302	368	387	387	368	252	424
85.0	32.0	33.6	29.4	54.8	7.076	302	386	386	386	386	266	434
86.0	36.3	38.9	32.1	-110.8	-1.5926	302	375	375	390	375	302	419
87.0	32.5	34.2	29.7	93.9	1.3499	302	392	392	392	392	260	437
88.0	35.1	37.4	31.4	-70.1	-1.0669	302	377	377	377	377	253	426
89.0	29.2	29.7	28.3	213.2	3.0638	302	365	365	365	439	005	587
90.0	32.7	33.8	30.8	-167.7	-2.4104	302	398	384	398	398	197	465
91.0	36.3	38.0	32.6	-88.6	-1.2729	302	387	387	387	387	250	433
92.0	32.7	32.8	30.8	88.6	1.2729	302	421	421	387	387	186	435
93.0	31.6	32.5	30.2	125.7	1.8067	302	446	397	397	348	103	495
94.0	36.9	38.1	34.0	-239.4	-3.4407	302	423	399	399	375	259	447
95.0	30.9	31.7	29.7	30.6	4.0397	302	446	397	397	397	397	397
96.0	32.0	34.1	31.3	-78.1	-1.1218	302	430	379	379	379	168	450
97.0	32.1	33.1	30.6	28.8	4.1133	302	443	364	364	364	126	483
98.0	32.0	32.9	30.4	6.4	0.918	302	442	360	401	360	156	482
100.0	32.3	33.3	30.7	-12.5	-1.002	302	412	373	373	412	180	489

Table 17G — Inferred Pressurant Distribution, Scaling Run 310: Test Configuration 2

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS M1												
TIME (SEC)	TEMP (°C)	BETA DELTA/1STAIR PRESSURANT FRACTION										
		MEAN I = 1										
COMMENCE VALVE OPENING												
0.0	28.0	28.0	31.8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1.0	31.5	31.6	26.3	-27.9	-7349	0.026	-0.007	-0.085	498	-0.085	129	-0.063
VALVE FULLY OPEN												
2.0	34.4	35.0	27.2	26.7	1.4920	0.077	1.06	0.29	567	-0.10	195	0.67
3.0	36.7	37.7	27.6	9.7	3.0955	0.106	0.85	0.66	469	-0.04	154	0.85
4.0	38.1	39.8	28.0	16.8	7.410	0.145	1.13	0.45	385	0.28	172	1.18
5.0	38.7	40.8	28.4	17.2	4722	0.168	1.16	0.64	354	0.39	193	1.60
6.0	39.3	41.8	28.9	16.8	5373	0.195	1.64	1.09	326	0.94	218	1.94
7.0	39.7	42.5	29.2	15.3	3.016	0.211	1.80	1.20	300	0.97	240	2.23
8.0	39.8	43.0	29.7	18.4	7959	0.244	2.13	1.83	303	1.53	280	2.51
9.0	39.7	43.3	30.1	18.8	6867	0.271	2.38	1.93	299	1.63	321	2.68
10.0	39.8	43.4	30.2	17.8	1280	0.277	2.45	2.08	283	1.77	336	2.75
11.0	39.8	43.7	30.3	18.2	5915	0.298	2.82	2.37	282	2.22	320	3.05
12.0	39.7	44.0	30.8	18.3	6945	0.322	3.04	2.66	304	2.59	368	3.35
13.0	39.6	43.9	30.9	20.0	2394	0.331	3.12	2.73	304	2.58	388	3.42
14.0	39.5	43.9	31.0	20.1	3518	0.342	3.26	2.95	311	2.64	404	3.65
COMMENCE VALVE CLOSURE												
15.0	39.4	44.0	31.3	18.8	3264	0.361	3.38	3.23	330	2.99	409	3.78
16.0	39.2	43.7	31.3	7.2	1929	0.365	3.40	3.24	324	2.99	428	3.72
VALVE FULLY CLOSED												
17.0	39.0	43.4	32.0	20.8	5356	0.380	3.60	3.33	333	3.16	473	4.03
18.0	40.1	44.8	32.5	-8.5	-2281	0.380	3.83	3.26	326	3.18	467	3.99
19.0	42.2	47.4	33.7	-15.0	-4012	0.390	3.92	3.64	321	3.42	393	4.15
20.0	38.9	43.2	31.9	25.0	6664	0.380	4.07	3.75	334	3.40	393	4.38
21.0	38.9	43.2	31.9	0.0	0.0000	0.380	3.76	3.67	305	3.31	376	4.46
22.0	40.1	44.8	32.3	-10.0	-2681	0.380	3.84	3.75	310	3.34	359	4.45
23.0	39.4	43.8	32.2	5.6	1498	0.390	3.91	3.82	314	3.40	357	4.42
24.0	36.2	35.7	30.5	30.2	8068	0.380	3.96	3.75	299	3.20	331	4.61
25.0	38.5	42.7	31.7	-22.9	-6181	0.380	3.94	3.85	313	3.31	340	4.49
26.0	41.7	46.0	33.4	-24.5	-6543	0.380	3.90	3.75	323	3.45	443	4.43
27.0	37.5	41.3	31.2	34.2	9122	0.380	4.09	3.99	311	3.40	331	4.58
28.0	39.0	43.4	32.0	-14.5	-3861	0.380	4.21	3.95	324	3.51	333	4.76
29.0	34.0	37.9	29.9	44.3	1.1817	0.380	4.26	4.13	360	3.38	313	4.76
30.0	38.3	42.5	31.6	-38.4	-1.0231	0.380	3.99	3.99	324	3.53	334	4.54
31.0	38.5	42.7	31.7	-1.6	-0.422	0.380	3.91	4.00	327	3.45	338	4.53
32.0	37.6	41.5	31.3	8.2	2183	0.380	3.98	3.98	330	3.30	310	4.56
33.0	41.3	46.3	33.3	-30.1	-8043	0.380	3.93	3.93	340	3.47	324	4.39
34.0	37.3	41.1	31.1	33.5	8946	0.380	3.87	3.97	337	3.37	317	4.57
35.0	38.7	42.9	31.8	-13.2	-3523	0.380	3.83	4.01	338	3.29	329	4.46
36.0	35.9	39.2	30.4	28.4	7579	0.380	3.76	4.10	320	3.08	308	4.66
37.0	38.3	42.4	31.7	-25.3	-6760	0.380	3.70	3.98	342	3.33	323	4.53
38.0	37.3	41.1	31.1	10.1	2689	0.380	3.62	3.92	342	3.32	342	4.02
39.0	34.1	36.9	29.6	38.5	1.0280	0.380	3.75	4.16	321	3.34	307	4.70
40.0	39.2	43.6	32.1	-55.1	-1.4714	0.380	3.74	4.00	339	3.39	330	4.35
41.0	37.3	41.1	31.1	17.7	4719	0.380	3.70	3.90	340	3.31	321	4.40
42.0	35.9	39.3	30.4	15.4	4100	0.380	3.67	3.90	332	3.11	322	4.46
43.0	40.1	44.7	32.6	-39.6	-1.0568	0.380	3.74	3.82	341	3.33	323	4.23
44.0	34.0	37.0	29.9	17.9	4779	0.380	3.76	3.86	338	3.29	338	4.43
45.0	35.0	38.1	29.9	33.0	9804	0.380	3.74	3.98	313	3.13	325	4.35
46.0	37.3	41.1	31.1	-26.3	-7023	0.380	3.80	4.10	320	3.30	330	4.40
47.0	33.6	44.3	32.4	-21.9	-5895	0.380	3.72	4.14	330	3.38	330	4.22
48.0	36.6	40.2	30.7	29.2	7789	0.380	3.68	4.21	315	3.15	326	4.32
49.0	33.4	26.0	29.2	42.4	1.1314	0.380	3.82	4.41	307	2.93	322	4.56
50.0	33.4	26.0	29.2	-60.0	-1.6013	0.380	3.62	4.17	335	3.26	335	4.17

(Table Continues)

Table 17G — Inferred Pressurant Distribution, Scaling Run 310: Test Configuration 2 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXI												
TIME (SEC)		TEMP (DEG C)		BETA		PRESSURANT FRACTION		MEAN		1 = 1		2
VALVE FULLY CLOSED		MEAN		AIR PRESSURANT		PRESSURANT		PRESSURANT		PRESSURANT		3
												4
												5
												6
												7
												8
												9
												10
												11
												12
												13
52.0	37.1	40.9	31.0	13.4	-3566	300	339	420	329	319	430	410
53.0	34.8	37.9	29.8	26.9	-7179	300	362	424	327	312	430	412
53.0	38.2	42.3	31.5	-36.9	-5840	300	366	415	341	332	434	415
54.0	40.3	45.0	32.6	-17.6	-4764	300	372	408	340	340	434	415
55.0	38.5	42.7	31.7	14.5	-3860	300	372	418	346	327	434	415
56.0	33.4	39.9	29.3	60.0	1.6013	300	356	431	326	311	434	415
57.0	36.4	39.9	30.7	-40.6	-1.0821	300	358	431	324	323	434	415
58.0	39.9	44.4	32.6	-32.4	-8654	300	362	413	334	348	434	415
59.0	37.8	41.7	31.4	18.2	-4856	300	372	421	332	323	434	415
60.0	35.7	39.0	30.3	22.6	6027	300	374	422	331	323	434	415
61.0	36.8	40.4	30.9	-12.0	-3207	300	380	422	340	339	434	415
62.0	39.0	43.3	32.1	-21.6	-5775	300	375	420	337	336	434	415
63.0	37.8	41.7	31.4	11.1	-2952	300	379	418	330	339	434	415
64.0	36.9	40.6	31.0	8.8	-2346	300	388	420	337	337	434	415
65.0	35.3	38.5	30.2	18.2	-4862	300	377	421	349	349	434	415
66.0	36.2	39.7	30.6	-10.6	-2823	300	397	419	364	352	434	415
67.0	38.5	42.6	31.8	-22.9	-6101	300	390	409	362	363	434	415
68.0	40.3	44.9	32.8	-10.5	-3860	300	394	409	368	359	434	415
69.0	37.8	41.7	31.4	20.9	-5575	300	381	410	371	381	434	415
70.0	35.9	39.2	30.4	20.5	-5470	300	388	411	377	354	434	415
71.0	36.2	39.7	30.6	-4.1	-1092	300	394	416	372	361	434	415
72.0	38.7	42.9	31.9	-24.4	-6509	300	397	415	369	369	434	415
73.0	38.3	42.4	31.7	3.1	-0827	300	401	411	364	364	434	415
74.0	37.3	41.0	31.2	10.1	2689	300	400	410	359	370	434	415
75.0	37.1	40.8	31.1	1.8	-0478	300	405	425	354	374	434	415
76.0	34.1	36.9	29.6	36.8	-9821	300	411	438	356	370	434	415
77.0	33.9	36.7	29.5	2.7	0729	300	411	439	369	369	434	415
78.0	36.9	40.6	31.0	-37.7	-1.0053	300	399	420	368	368	434	415
79.0	37.8	41.7	31.4	-8.8	-2346	300	401	420	362	362	434	415
80.0	37.6	41.5	31.3	1.7	-0432	300	408	418	359	369	434	415
81.0	39.0	43.3	32.1	-12.8	-3403	300	404	413	360	369	434	415
82.0	33.8	44.2	32.5	-5.8	-1544	300	399	416	365	373	434	415
83.0	47.5	43.1	32.9	-5.4	-1454	300	403	411	362	370	434	415
84.0	40.5	43.1	32.9	0.0	0.0000	300	401	409	368	368	434	415
85.0	40.1	44.7	32.7	2.7	0716	300	398	414	364	381	434	415
86.0	39.9	44.4	32.6	1.4	0366	300	395	412	369	378	434	415
87.0	33.2	43.5	32.2	5.7	-1520	300	403	412	368	376	434	415
88.0	37.1	40.8	31.1	19.5	-5153	300	403	414	362	383	434	415
89.0	36.0	40.4	30.9	3.7	-0985	300	404	415	362	383	434	415
90.0	36.2	39.7	30.6	5.8	-1554	300	414	414	359	381	434	415
91.0	34.5	37.4	29.8	22.4	-5984	300	428	415	362	389	434	415
92.0	34.8	37.8	29.9	-5.0	-1324	300	424	412	361	399	434	415
93.0	33.6	36.2	29.3	18.6	-4961	300	425	411	367	396	434	415
94.0	34.6	37.6	29.8	-16.2	-4313	300	431	418	367	392	434	415
95.0	35.9	39.2	30.4	-15.9	-4240	300	421	409	364	387	434	415
96.0	37.3	41.0	31.2	-15.4	-4100	300	425	405	364	384	434	415
97.0	37.5	41.3	31.3	-1.8	-0469	300	422	402	362	392	434	415
98.0	39.4	43.8	32.3	-17.4	-4639	300	431	413	360	396	434	415
99.0	39.2	43.5	32.2	1.5	-0389	300	422	413	360	387	434	415
100.0	38.5	42.6	31.8	6.1	-1619	300	420	411	356	393	434	415

Table 17H – Inferred Pressurant Distribution, Scaling Run 311: Test Configuration 2

INFERRED PRESSURANT DISTRIBUTION - 3 C METER CHAMBER OBSTRUCTED GAS MI																	
TIME (SEC)	TEMP. DEG C	BETA	BETA/TSTAR	PRESSURANT FRACTION	MEAN 1	2	3	4	5	6	7	8	9	10	11	12	13
CONDUCE VALVE OPENING																	
29.8	28.0	37.9	1.1	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30.0	31.1	20.6	79.3	2.2260	0.020	-1.01	-0.21	7.74	0.19	-0.21	-1.00	-0.45	-0.19	-0.19	-0.21	-0.21	178
CONDUCE VALVE CLOSED																	
30.0	31.4	34.6	32.2	1.6594	0.076	112	081	1.241	112	264	-0.10	0.81	-0.71	1.13	-0.41	-1.62	0.10
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-0.9560	0.090	070	-029	7.14	021	153	-0.54	1.36	-0.95	0.70	0.00	0.37	0.70
30.0	31.7	31.6	4.1	-													

(Table Continues)

Table 17H — Inferred Pressurant Distribution, Scaling Run 311: Test Configuration 2 (Continued)

INFERRED PRESSURANT DISTRIBUTION - 5 C METER CHAMBER OBSTRUCTED GAS MIXT														
TIME (SEC)		BETA BETA/TSTAR PRESSURANT FRACTION												
		MEAN I = 1												
		VALVE FULLY CLOSED												
TIME (SEC)	MEAN AIR PRESSURANT	1	2	3	4	5	6	7	8	9	10	11	12	13
51.0	34.7	35.1	34.2	-137.3	-3.9085	395	155	722	155	155	653	964	271	617
52.0	32.6	32.9	32.3	37.4	1.0642	395	666	658	666	225	-1.042	1.016	223	617
53.0	31.1	31.2	30.8	44.7	1.2720	395	902	920	902	002	-1.853	1.162	234	617
54.0	36.1	36.5	35.5	-92.0	-2.6184	395	150	356	247	150	-427	632	363	617
55.0	32.3	32.6	32.9	41.1	1.1700	395	133	133	133	133	-686	678	265	617
56.0	31.1	31.2	30.8	58.0	1.6507	395	-238	904	-238	-238	-1.608	904	408	617
57.0	34.7	35.1	34.2	-77.8	-2.2163	395	015	576	127	127	-658	576	352	617
58.0	34.9	35.3	34.4	-2.5	-0.7211	395	048	488	048	158	-611	558	268	617
59.0	30.9	31.1	30.7	85.3	2.4272	395	127	395	127	395	-1.953	917	395	617
60.0	29.0	28.9	29.1	144.4	4.1114	395	1.678	622	2.293	1.678	5.702	-1.196	528	617
61.0	33.3	32.4	34.8	-160.4	-4.5658	395	511	348	470	511	798	266	309	617
62.0	35.6	34.3	37.6	-34.9	-0.9942	395	505	353	444	505	688	292	414	617
63.0	34.7	33.6	36.5	12.0	0.3497	395	488	354	455	488	724	253	421	617
64.0	30.6	30.2	31.1	95.0	2.7041	395	770	188	563	666	1.496	-0.60	375	617
65.0	29.3	29.2	29.5	91.9	2.6162	395	1.162	597	576	869	3.507	-0.890	375	617
66.0	33.9	33.0	35.1	-141.0	-4.0180	395	531	244	435	483	914	148	435	617
67.0	35.9	34.7	37.4	-27.8	-0.7927	395	535	369	421	459	801	231	421	617
68.0	34.6	33.7	35.5	16.8	0.4770	395	482	264	439	482	874	177	439	617
69.0	31.2	30.8	32.0	70.4	2.0052	395	599	066	362	514	1.284	-0.00	428	617
70.0	30.2	29.9	30.7	47.1	1.3466	395	781	189	365	823	1.780	-1.49	494	617
71.0	30.9	30.5	31.5	-34.5	-0.9816	395	580	082	388	484	1.256	-0.02	484	617
72.0	33.7	32.9	34.9	-69.6	-1.9812	395	546	194	391	391	907	236	391	617
73.0	34.6	33.7	35.9	-14.3	-0.4073	395	504	193	413	367	926	275	413	617
74.0	33.2	32.5	34.2	24.1	0.6852	395	498	162	286	386	947	218	42	617
75.0	32.5	31.8	32.4	15.1	0.4313	395	473	156	410	466	981	156	473	617
76.0	31.1	30.6	31.7	40.9	1.1636	395	437	077	247	347	1.246	-0.77	437	617
77.0	33.5	32.8	34.7	-60.9	-1.7326	395	432	241	399	346	873	188	399	617
78.0	34.9	34.0	36.3	-22.5	-0.6413	395	449	274	361	361	799	230	403	617
79.0	32.6	32.0	33.6	39.8	1.1328	395	428	244	367	467	981	182	428	617
80.0	32.3	31.7	32.2	8.2	0.2360	395	436	193	390	324	982	193	390	617
81.0	30.0	29.8	30.4	83.4	2.3742	395	637	149	322	322	1.736	-0.08	479	617
82.0	29.3	29.2	29.5	67.7	1.9221	395	896	594	304	908	2.959	-2.88	500	617
83.0	31.6	31.1	32.3	-117.8	-3.3543	395	584	089	389	324	1.131	-2.24	471	617
84.0	34.6	33.7	35.8	-60.5	-1.7234	395	473	231	425	428	813	279	473	617
85.0	34.6	33.7	35.8	0.0	0.0000	395	436	194	436	329	824	291	436	617
86.0	34.2	33.4	35.4	5.5	0.1532	395	446	152	446	344	851	294	446	617
87.0	32.8	32.2	32.8	25.8	0.7356	395	419	188	482	356	922	293	419	617
88.0	32.1	31.6	32.0	16.6	0.4719	395	362	166	434	362	1.010	-2.90	434	617
89.0	28.6	28.8	21.3	329.7	9.3879	395	019	017	017	017	-0.990	0.44	017	617
90.0	28.5	28.8	21.3	120.7	3.4365	395	042	028	028	038	-0.51	-0.69	038	617
91.0	30.6	30.7	30.4	-175.6	-5.0000	395	246	1.539	246	992	-2.340	1.216	078	617
92.0	33.3	33.6	33.0	-77.2	-2.1932	395	260	895	420	375	-1.019	739	260	617
93.0	32.9	34.1	32.5	-9.5	-0.2705	395	234	964	372	320	-959	816	372	617
94.0	34.7	35.0	34.3	-13.9	-0.3945	395	233	768	365	329	-823	760	365	617
95.0	32.8	32.0	32.5	32.7	0.9566	395	112	927	287	637	-1.287	812	287	617
96.0	31.6	31.8	31.3	31.2	1.6888	395	-024	1.388	430	884	-1.840	884	430	617
97.0	30.2	30.3	30.0	57.6	1.6409	395	-130	1.765	628	1.907	-3.161	1.286	249	617
98.0	29.7	29.8	29.6	39.4	1.1212	395	-237	2.307	192	1.349	-4.568	1.778	720	617
99.0	29.7	29.8	29.6	0.0	0.0000	395	-378	2.266	680	1.209	-4.609	1.737	151	617
100.0	31.6	31.8	31.3	-90.4	-2.5729	395	223	1.117	223	470	-1.565	893	447	617

MEAN VALUES OF ALL QUANTITIES																			
TIME SEC	TMP.C	TMP.C	TMP.C	BETA	X BAR	MEAN PRESSURANT FRACTIONS AT LOCATIONS 1													TAU
						1	2	3	4	5	6	7	8	9	10	11	12	13	
0.0	27.3	27.3	17.1	3	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.0	27.3	27.3	17.1	3	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1.0	29.5	29.5	22.6	24.3	0.371	0.19	0.10	0.19	0.38	0.34	0.75	0.09	1.19	-2.02	-0.47	-0.83	0.2	0.36	
1.4	30.9	31.1	29.7	27.6	1.6383	0.38	0.21	0.16	0.45	0.32	1.25	-0.60	1.51	-2.43	-0.37	-0.45	0.1	-0.43	
2.0	32.6	33.0	36.0	32.3	0.890	0.57	0.26	0.00	0.55	0.11	1.38	-0.29	1.27	-1.74	0.18	-0.29	0.2	0.54	
2.3	33.8	34.4	26.3	32.7	0.727	0.7	0.58	0.11	0.52	0.14	1.49	0.12	1.18	-1.21	0.52	-0.13	0.5	0.04	
3.1	35.1	36.0	26.5	34.7	0.586	0.96	0.68	0.08	0.50	0.12	1.37	0.47	1.34	-0.29	0.52	0.24	0.9	0.59	
3.6	36.0	37.2	26.7	33.7	0.6263	1.14	0.84	0.46	0.61	0.21	1.36	0.68	1.53	0.31	1.20	0.53	1.3	0.94	
4.0	36.7	38.2	26.9	35.9	0.7991	1.34	0.96	0.46	0.61	0.21	1.36	0.68	1.53	0.31	1.20	0.53	1.3	0.94	
4.7	37.5	39.3	27.2	34.3	0.6262	1.53	1.09	0.61	0.61	0.21	1.36	0.68	1.53	0.31	1.20	0.53	1.3	0.94	
5.4	38.0	40.2	27.5	35.1	0.699	1.73	1.25	0.81	0.66	0.23	1.37	0.73	1.32	0.21	1.19	1.64	1.9	1.55	
6.1	38.4	41.0	28.8	37.4	0.5179	1.92	1.51	1.06	0.35	0.100	1.50	1.38	1.26	0.21	1.19	1.64	2.1	1.85	
6.8	38.7	41.5	28.2	37.4	0.625	2.11	1.69	1.31	0.32	0.123	1.50	1.00	1.26	0.21	1.19	1.64	2.1	1.85	
7.7	39.1	42.0	28.5	39.4	0.5192	2.30	1.88	1.55	0.30	1.48	1.36	1.00	1.26	0.21	1.19	1.64	2.1	1.85	
8.4	39.4	42.4	28.8	37.6	0.699	2.49	2.06	1.76	0.29	1.68	1.37	1.29	1.26	0.21	1.19	1.64	2.1	1.85	
9.3	39.1	42.7	29.1	38.1	0.599	2.68	2.25	1.98	0.22	1.88	1.37	1.29	1.26	0.21	1.19	1.64	2.1	1.85	
10.6	39.6	43.2	29.3	38.4	0.428	2.87	2.46	2.19	0.26	2.11	1.39	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
11.5	39.0	43.9	29.7	38.2	0.378	3.07	2.66	2.43	0.22	2.36	1.31	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
12.8	39.3	43.3	29.9	39.0	0.4528	3.26	2.84	2.65	0.29	2.58	1.36	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
14.2	38.7	43.3	30.1	39.6	0.476	3.45	3.06	2.87	0.29	2.76	1.37	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
15.7	38.6	43.3	30.3	39.3	0.581	3.64	3.32	3.05	0.24	2.93	1.37	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
17.4	38.2	42.8	30.7	39.7	0.393	3.83	3.68	3.31	0.24	3.19	1.39	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
18.6	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
19.9	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
21.2	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
22.5	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
23.8	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
25.1	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
26.4	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
27.7	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
29.0	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
30.3	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
31.6	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
32.9	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
34.2	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
35.5	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
36.8	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
38.1	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
39.4	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
40.7	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
42.0	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
43.3	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
44.6	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
45.9	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
47.2	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
48.5	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
49.8	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
51.1	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
52.4	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
53.7	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
55.0	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
56.3	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
57.6	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
58.9	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
60.2	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
61.5	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
62.8	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
64.1	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
65.4	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
66.7	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
68.0	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
69.3	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
70.6	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
71.9	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
73.2	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
74.5	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
75.8	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
77.1	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
78.4	39.6	43.9	29.7	38.2	0.428	4.02	4.03	3.31	0.24	3.41	1.41	1.26	1.26	0.21	1.19	1.64	2.1	1.85	
79.7	39.3	43.3	29.9	39.0	0.581	4.02	4.03	3.31											

Table 19 — Normalized Mean Local Pressurant Fractions, Test Configuration 2

NORMALIZED MEAN LOCAL PRESSURANT FRACTIONS													
LOCATIONS 1													
1	2	3	4	5	6	7	8	9	10	11	12	13	TAU
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.26	0.49	0.22	0.88	1.92	1.27	3.06	-522	-120	-111	-059	-093	0.89	05
0.54	0.42	1.405	0.83	3.22	-154	3.88	-625	-094	-116	-038	-112	1.33	10
0.82	-0.00	1.533	0.29	3.56	-075	3.28	-449	0.87	-075	0.71	-056	1.39	15
1.48	0.27	1.526	0.37	3.85	0.31	3.03	-313	1.35	-033	1.50	0.10	1.59	20
1.76	0.22	1.298	0.30	3.54	1.20	3.46	-075	2.27	0.61	2.50	1.52	2.37	25
2.08	0.63	1.188	0.55	3.51	1.75	3.93	0.81	3.09	1.41	3.35	2.42	3.10	30
2.47	1.13	1.091	0.94	3.64	2.28	4.55	2.86	3.26	2.10	4.19	3.14	3.81	35
2.76	1.57	1.005	1.31	3.95	2.81	5.20	3.29	4.42	2.64	4.92	3.99	4.55	40
3.23	2.98	0.944	1.89	4.47	3.41	5.65	4.24	5.40	3.08	5.51	4.77	5.16	45
3.50	2.75	0.866	2.58	4.91	4.07	6.09	5.12	5.94	3.63	5.97	5.42	5.70	50
4.36	3.39	0.826	3.18	5.42	4.63	6.70	5.91	5.53	4.09	6.52	6.02	6.22	55
4.84	4.00	0.782	3.80	6.08	5.16	7.21	6.58	6.56	4.53	7.19	6.60	6.72	60
5.32	4.53	0.772	4.34	6.62	5.66	7.70	7.34	7.13	4.99	7.67	7.18	7.31	65
5.79	5.10	0.752	4.84	7.17	6.17	8.33	7.85	7.67	5.51	8.24	7.81	7.92	70
6.33	5.66	0.738	5.44	7.97	6.71	8.76	8.35	8.25	5.99	8.81	8.28	8.38	75
6.87	6.27	0.753	6.09	8.55	7.26	9.30	8.92	8.74	6.59	9.21	8.68	8.80	80
7.33	6.84	0.772	6.65	9.18	7.91	9.65	9.54	9.27	7.11	9.62	9.20	9.17	85
7.89	7.40	0.798	7.11	9.68	8.46	1.012	1.008	9.78	7.54	1.011	9.74	9.68	90
8.57	7.96	0.835	7.56	1.023	9.12	1.053	1.071	1.023	8.09	1.057	1.019	1.002	95
9.49	8.10	0.823	7.87	1.100	1.013	1.098	1.142	1.036	8.45	1.098	1.083	1.058	1.00
1.070	8.61	0.761	8.27	1.065	1.141	1.082	1.106	9.86	8.42	1.073	1.073	1.035	1.05
1.128	8.54	0.728	8.06	1.058	1.239	1.076	1.091	9.57	8.47	1.069	1.108	1.038	1.10
1.198	8.83	0.758	7.97	1.117	1.307	1.051	1.033	9.55	8.80	1.026	1.079	1.025	1.15
1.250	8.69	0.755	7.81	1.144	1.389	1.040	1.007	8.98	8.88	1.013	1.101	1.022	1.20
1.269	8.59	0.794	7.35	1.139	1.443	1.064	1.025	8.62	8.72	1.022	1.187	1.033	1.25
1.324	8.71	0.734	7.28	1.219	1.495	1.014	9.96	8.60	8.95	9.72	1.171	1.033	1.30
1.377	8.61	0.726	7.10	1.268	1.574	9.94	9.97	8.51	8.95	9.54	1.169	1.016	1.35
1.422	8.72	0.719	6.74	1.286	1.658	9.85	9.85	8.09	8.96	9.26	1.210	1.030	1.40
1.490	8.74	0.701	6.85	1.335	1.711	9.63	9.64	8.11	9.11	9.10	1.183	1.010	1.45
1.562	8.70	0.701	6.88	1.426	1.761	9.49	9.47	8.07	9.06	8.78	1.142	9.94	1.50
1.626	8.41	0.699	6.73	1.467	1.834	9.19	9.42	7.96	9.01	8.58	1.152	9.79	1.55
1.692	8.49	0.700	6.69	1.544	1.899	8.97	9.05	7.98	8.86	8.43	1.140	9.64	1.60
1.738	1.486	0.700	4.78	1.681	2.167	8.68	1.005	3.60	1.516	7.13	2.049	1.034	1.65
1.802	1.067	0.564	6.20	1.424	2.069	8.94	8.86	6.40	1.062	7.47	1.342	9.46	1.70
1.808	1.023	0.552	6.82	1.453	2.207	8.68	8.50	6.26	1.034	7.28	1.280	8.92	1.75
2.314	0.81	1.151	6.19	3.134	1.505	8.54	9.19	1.500	0.74	1.188	-0.63	9.65	1.80
1.983	1.098	0.509	5.53	1.116	2.721	6.25	9.45	4.85	1.140	5.01	1.781	7.42	1.85
2.033	0.909	0.593	6.01	1.605	2.467	7.40	9.20	5.79	9.41	6.58	1.302	9.10	1.90
2.096	0.917	0.553	5.47	1.413	2.546	7.17	9.84	5.72	1.002	5.79	1.472	9.38	1.95
2.148	0.859	0.559	5.73	1.726	2.494	7.16	9.76	5.96	9.19	6.38	1.296	9.13	2.00
2.230	0.824	0.550	5.67	1.808	2.517	7.35	9.88	6.23	8.70	6.63	1.249	8.67	2.05
2.271	0.746	0.595	4.12	1.530	2.676	7.30	1.215	6.33	9.05	6.23	1.587	1.008	2.10
2.650	0.630	0.844	8.04	2.917	2.421	7.28	4.60	8.27	7.03	7.66	2.61	6.32	2.15
2.999	0.703	0.639	6.65	2.458	2.609	7.17	7.40	6.99	7.33	6.83	7.50	7.35	2.20
2.671	0.418	0.535	6.17	2.890	2.331	5.77	4.88	7.04	4.73	6.45	3.18	5.27	2.25
2.617	0.519	0.504	5.26	2.513	2.572	5.70	6.08	5.82	5.49	5.64	5.97	5.70	2.30
2.682	0.519	0.500	5.06	2.576	2.631	5.48	6.10	5.79	5.30	5.48	5.95	5.67	2.35
2.693	0.241	0.341	4.21	2.861	2.458	4.46	4.03	5.55	2.44	4.83	3.28	3.62	2.40
2.701	0.336	0.349	3.33	2.638	2.634	3.92	4.49	4.55	3.43	4.17	4.54	4.13	2.45

Table 20 — Standard Deviation of Mean Local Pressurant Fractions, Test Configuration 2

STANDARD DEVIATION OF MEAN LOCAL PRESSURANT FRACTIONS																
LOCATIONS 1																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.25	1.74	3.19	1.79	1.33	1.21	2.28	2.29	1.40	1.21	1.03	1.22	1.30	0.95			
0.95	1.54	4.31	1.66	1.38	1.09	2.76	2.86	1.68	1.18	1.17	1.23	1.48	1.0			
0.94	0.99	5.82	1.36	1.19	0.83	1.07	3.38	1.72	1.40	1.06	1.33	0.73	1.5			
1.18	0.92	6.43	1.27	1.52	0.79	0.66	3.41	1.56	1.36	1.29	1.71	1.00	2.0			
0.98	0.76	3.25	0.80	0.92	0.75	0.54	1.50	1.10	0.82	1.12	0.72	0.64	2.5			
0.73	0.71	2.44	0.75	0.73	0.69	0.47	1.26	0.82	0.62	0.73	0.71	0.55	3.0			
0.56	0.58	2.04	0.63	0.58	0.62	0.47	1.02	0.60	0.42	0.41	0.66	0.50	3.5			
0.47	0.49	1.59	0.45	0.42	0.57	0.48	0.68	0.47	0.26	0.31	0.43	0.45	4.0			
0.37	0.27	1.39	0.37	0.40	0.47	0.45	0.48	0.36	0.25	0.33	0.26	0.40	4.5			
0.18	0.25	0.77	0.26	0.27	0.34	0.32	0.47	0.22	0.24	0.32	0.21	0.30	5.0			
0.17	0.29	0.81	0.31	0.37	0.42	0.39	0.53	0.27	0.32	0.30	0.23	0.27	5.5			
0.18	0.21	0.84	0.34	0.36	0.41	0.42	0.58	0.15	0.27	0.30	0.20	0.22	6.0			
0.22	0.23	0.77	0.33	0.40	0.37	0.40	0.55	0.22	0.24	0.36	0.20	0.24	6.5			
0.20	0.26	0.65	0.40	0.57	0.36	0.40	0.53	0.23	0.28	0.25	0.25	0.25	7.0			
0.20	0.28	0.63	0.35	0.50	0.31	0.36	0.48	0.28	0.27	0.31	0.18	0.21	7.5			
0.28	0.27	0.64	0.34	0.47	0.37	0.33	0.49	0.18	0.19	0.24	0.19	0.14	8.0			
0.31	0.31	0.68	0.39	0.45	0.39	0.47	0.54	0.27	0.15	0.38	0.31	0.27	8.5			
0.31	0.28	0.63	0.35	0.35	0.43	0.52	0.54	0.33	0.21	0.40	0.32	0.26	9.0			
0.53	0.38	0.72	0.51	0.39	0.62	0.65	0.51	0.22	0.23	0.33	0.35	0.42	9.5			
2.05	0.78	1.08	0.97	1.59	2.05	1.06	0.66	0.44	0.58	0.72	0.86	0.86	1.00			
3.31	1.36	1.23	1.49	3.80	3.50	1.35	0.77	0.63	0.94	0.92	1.11	1.05	1.05			
5.22	1.66	1.53	1.77	5.67	5.03	1.63	1.02	0.80	1.40	1.24	1.54	1.37	1.10			
6.88	2.14	1.92	2.11	7.28	6.69	1.85	0.99	1.02	1.78	1.36	1.77	1.65	1.15			
8.60	2.44	2.25	2.42	9.02	8.28	2.14	1.26	1.23	2.17	1.63	2.20	1.98	1.20			
1.048	2.79	2.64	2.74	1.097	1.000	2.84	1.97	1.51	2.55	2.16	3.50	2.62	1.25			
1.218	3.09	2.99	3.02	1.245	1.171	2.77	1.88	1.73	2.85	2.17	3.34	2.75	1.30			
1.350	3.47	3.29	3.28	1.410	1.335	3.03	2.15	1.95	3.19	2.36	3.56	2.99	1.35			
1.570	3.88	3.65	3.69	1.593	1.495	3.31	2.46	2.29	3.54	2.55	4.25	3.52	1.40			
1.735	4.26	3.94	3.96	1.756	1.667	3.53	2.49	2.28	3.97	2.80	4.17	3.54	1.45			
1.899	4.58	4.31	4.31	1.906	1.840	3.74	2.75	2.73	4.28	2.90	4.31	3.78	1.50			
2.067	4.93	4.62	4.57	2.074	2.005	3.92	2.98	3.01	4.63	3.12	4.72	3.99	1.55			
2.237	5.24	4.90	4.90	2.229	2.173	4.14	3.09	3.50	4.88	3.37	4.89	4.26	1.60			
2.460	1.935	1.184	7.00	3.735	2.336	4.37	4.70	1.174	1.891	4.18	2.632	5.55	1.65			
2.685	9.44	6.16	5.60	2.747	2.459	4.87	3.53	3.54	8.36	3.92	1.001	4.87	1.70			
2.781	9.26	6.58	6.14	2.917	2.651	5.08	3.83	3.53	8.49	4.16	8.52	4.93	1.75			
2.857	2.707	1.445	6.55	4.129	3.527	5.36	4.95	2.034	1.955	1.232	2.817	5.91	1.80			
3.050	1.112	7.24	6.74	3.815	3.954	6.85	5.16	9.34	1.137	7.01	2.121	6.26	1.85			
3.270	8.18	7.08	6.97	3.439	3.147	5.59	5.32	6.06	8.01	4.91	1.141	6.13	1.90			
3.459	8.79	7.42	7.49	3.871	3.313	5.81	6.79	6.20	9.27	5.98	1.547	6.75	1.95			
3.616	8.44	7.22	7.29	3.745	3.493	6.09	6.97	5.97	8.47	5.42	1.250	6.96	2.00			
3.774	8.43	7.49	5.07	3.877	3.670	6.44	7.54	5.75	8.23	5.54	1.206	6.85	2.05			
3.959	8.16	9.38	9.35	4.410	3.818	6.74	2.23	7.60	9.16	5.83	1.983	5.55	2.10			
4.011	8.93	1.118	1.037	4.149	4.124	7.07	9.71	8.12	8.12	7.04	1.733	7.31	2.15			
4.232	8.42	9.18	9.29	4.110	4.210	7.34	6.10	4.71	8.40	6.48	7.55	7.22	2.20			
4.408	9.83	9.95	1.057	4.467	4.561	7.86	7.16	6.93	9.07	7.95	1.159	7.81	2.25			
4.593	9.61	9.14	1.085	4.484	4.623	8.12	6.89	7.70	9.12	7.40	8.34	7.93	2.30			
4.787	9.93	1.028	1.023	4.647	4.792	8.35	7.21	8.02	9.35	7.54	8.60	8.21	2.35			
4.968	1.027	1.035	1.100	4.871	5.065	8.80	7.30	9.84	9.60	8.50	8.86	8.29	2.40			
5.147	1.042	1.077	1.065	5.002	5.179	8.72	7.61	8.81	9.66	8.14	8.93	8.66	2.45			

Table 21 — Deviations of Mean Local Pressurant Fractions, Test Configuration 2

DEVIATIONS OF MEAN LOCAL PRESSURANT FRACTIONS													
LOCATIONS 1													
1	2	3	4	5	6	7	8	9	10	11	12	13	TAU
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
-0.23	0.00	0.73	0.39	1.43	1.76	2.56	-0.71	-1.70	-1.61	-1.08	-1.42	-0.40	0.05
-0.45	-0.57	1.36	-0.15	2.23	-2.53	2.90	-0.24	-1.93	-2.15	-1.37	-2.10	-0.34	1.0
-0.66	-1.48	1.385	-1.19	2.08	-2.23	1.80	-0.59	-1.01	-2.23	-0.77	-2.04	-0.09	1.5
-0.49	-1.70	1.329	-1.60	1.87	-1.66	1.08	-0.10	-0.63	-2.30	-0.47	-1.87	-0.38	2.0
-0.71	-2.26	1.931	-2.18	1.06	-1.28	0.98	-0.323	-0.11	-1.87	-0.03	-0.93	-0.11	2.5
-0.08	-2.34	0.92	-2.41	0.55	-1.22	0.98	-0.215	-0.12	-1.56	-0.38	-0.55	0.14	3.0
-0.99	-2.33	0.745	-2.52	0.18	-1.18	1.09	-0.140	-0.30	-1.36	-0.73	-0.32	0.35	3.5
-1.26	-2.39	0.10	-2.64	0.00	-1.15	1.24	-0.67	0.46	-1.32	0.96	0.04	0.59	4.0
-1.22	-2.37	0.499	-2.56	0.02	-1.04	1.21	-0.21	0.45	-1.37	1.06	0.32	0.72	4.5
-1.04	-2.29	0.71	-2.37	-0.04	-0.87	1.15	-0.17	0.50	-1.31	1.03	0.48	0.76	5.0
-1.07	-2.04	2.82	-2.25	-0.01	-0.80	1.27	-0.48	0.50	-1.34	1.09	0.59	0.78	5.5
-1.09	-1.92	1.90	-2.12	0.16	-0.76	1.29	-0.65	0.63	-1.40	1.27	0.67	0.80	6.0
-1.10	-1.89	1.30	-2.08	0.20	-0.76	1.28	-0.92	0.71	-1.43	1.25	0.76	0.89	6.5
-1.12	-1.81	0.61	-2.07	0.26	-0.74	1.42	-0.94	0.76	-1.40	1.33	0.91	1.01	7.0
-1.07	-1.75	-0.02	-1.96	0.56	-0.70	1.35	-0.94	0.85	-1.42	1.40	0.87	0.98	7.5
-1.04	-1.64	0.37	-1.81	0.64	-0.65	1.39	-1.02	0.83	-1.32	1.31	0.77	0.89	8.0
-1.07	-1.56	0.68	-1.75	0.78	-0.49	1.25	-1.14	0.87	-1.29	1.22	0.80	0.77	8.5
-1.00	-1.49	0.91	-1.77	0.79	-0.43	1.23	-1.19	0.90	-1.34	1.22	0.85	0.79	9.0
-0.82	-1.53	1.04	-1.83	0.84	-0.26	1.14	-1.32	0.84	-1.30	1.18	0.80	0.63	9.5
-0.59	-1.78	1.65	-2.01	1.12	0.25	1.10	-1.54	0.48	-1.43	1.10	0.94	0.70	1.00
0.75	-1.33	2.33	-1.67	0.71	1.47	0.87	-1.12	-0.68	-1.52	0.79	0.79	0.41	1.05
1.28	-1.46	2.72	-1.94	0.58	2.39	0.76	-0.91	-0.42	-1.53	0.69	1.08	0.38	1.10
1.91	-1.23	2.49	-2.09	1.11	3.01	0.45	-0.27	-0.82	-1.26	0.20	0.73	0.19	1.15
2.38	-1.43	2.97	-2.31	1.32	3.77	0.28	-0.05	-1.14	-1.24	0.01	0.88	0.10	1.20
2.50	-1.59	3.14	-2.84	1.21	4.25	0.46	0.06	-1.56	-1.46	0.04	1.68	0.35	1.25
3.00	-1.53	2.30	-2.96	1.95	4.75	-0.10	-0.28	-1.64	-1.29	-0.53	1.46	0.09	1.30
3.47	-1.69	3.04	-3.21	2.38	5.44	-0.36	-0.34	-1.79	-1.35	-0.76	1.39	-0.14	1.35
3.86	-1.64	3.18	-3.63	2.50	6.21	-0.51	-0.52	-2.28	-1.41	-1.11	1.73	-0.06	1.40
4.47	-1.68	3.41	-3.58	2.92	6.69	-0.79	-0.79	-2.31	-1.32	-1.33	1.41	-0.32	1.45
5.13	-1.79	3.48	-3.60	3.78	7.13	-1.00	-1.01	-2.82	-1.43	-1.70	0.93	-0.54	1.50
5.72	-1.94	3.56	-3.81	4.13	7.80	-1.33	-1.13	-2.58	-1.54	-1.97	0.98	-0.76	1.55
6.32	-2.11	3.60	-3.92	4.84	8.38	-1.64	-1.56	-2.63	-1.75	-2.18	0.79	-0.96	1.60
1.71	-4.20	-7.97	-3.89	-3.86	1.101	-1.99	-0.62	-7.07	4.49	-3.53	9.82	-0.33	1.65
6.10	-0.06	5.08	-4.53	3.51	9.96	-1.78	-1.86	-4.33	-0.11	-3.25	2.69	-1.26	1.70
7.29	-0.56	5.27	-3.96	3.74	1.128	-2.11	-2.29	-4.53	-0.25	-3.51	2.01	-1.86	1.75
1.229	-1.165	0.66	-4.66	2.049	4.20	-2.30	-1.45	-4.15	-1.010	-1.03	-1.147	-1.20	1.80
8.92	0.07	5.82	-5.38	0.25	1.630	-4.66	-1.46	-6.26	0.49	-5.90	6.90	-3.49	1.85
9.36	-1.38	5.94	-4.96	5.08	1.371	-3.57	-1.77	-5.18	-1.56	-4.39	2.06	-1.86	1.90
9.93	-1.86	5.50	-5.56	3.10	1.443	-3.86	-1.19	-5.31	-1.01	-5.24	3.69	-1.65	1.95
1.039	-2.50	5.50	-5.36	6.17	1.385	-3.93	-1.33	-5.13	-1.90	-4.71	1.87	-1.96	2.00
1.115	-2.91	5.45	-5.48	6.93	1.402	-3.80	-1.27	-4.92	-2.45	-4.52	1.34	-2.49	2.05
1.150	-3.75	7.26	-7.09	4.09	1.555	-3.90	-0.94	-5.68	-2.16	-4.97	4.66	-1.13	2.10
1.531	-4.97	2.83	-3.23	1.790	1.234	-3.99	-0.67	-3.00	-4.24	-3.61	-8.66	-4.95	2.15
1.466	-4.30	4.94	-4.68	1.325	1.476	-4.17	-3.94	-4.35	-4.00	-4.50	-3.83	-3.98	2.20
1.654	-5.93	4.62	-4.00	1.874	1.314	-4.40	-5.29	-3.13	-5.44	-3.72	-6.99	-4.90	2.25
1.545	-5.04	5.18	-4.96	1.490	1.550	-4.53	-4.15	-4.41	-4.74	-4.59	-4.25	-4.52	2.30
1.633	-5.09	5.29	-5.22	1.547	1.603	-4.81	-4.19	-4.50	-4.99	-4.80	-4.34	-4.62	2.35
1.783	-6.69	5.69	-4.89	1.950	1.547	-4.63	-5.08	-3.56	-6.67	-4.28	-5.82	-5.49	2.40
1.784	-5.81	5.68	-5.83	1.721	1.717	-5.25	-4.68	-4.62	-5.74	-5.00	-4.63	-5.04	2.45

8 CASES